

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

499.9
F7625Un
Log 3



Lumber Yield From Sitka Spruce In Southeastern Alaska

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
RECEIVED

NOV 6 1972

PROCUREMENT SECTION
CURRENT SERIAL RECORDS



Paul H. Lane,
Richard O. Woodfin Jr,
John W. Henley, and
Marlin E. Plank

ABSTRACT

A representative sample of 400 mature, Sitka spruce, sawtimber trees from throughout southeastern Alaska produced 1,009 commercial saw logs that were sawn at Wrangell, Alaska. The distribution of these saw logs by log grade was: 3 percent Select, 7 percent No. 1, 43 percent No. 2, and 47 percent No. 3. The total net log scale (Scribner) was 774,000 board feet. A total of 1,051,000 board feet of lumber were produced from the sample logs, most of which (98 percent) were cants 3 to 8 inches in thickness for export to Japan.

The lumber was graded and tallied by two lumber grading systems: (1) Export grades used by the sawmill, and (2) the lumber grading and dressing rules used by the Pacific Lumber Inspection Bureau (PLIB).

Under the Export grading rules, the average yield of high grade cants (Piano grade) was 9 percent. The comparable yield by the PLIB lumber grades was 13 percent for No. 2 and No. 3 Clear.

Keywords: Log yield, lumber, forest industries,
Sitka spruce, southeast Alaska.

CONTENTS

	Page
INTRODUCTION	1
OBJECTIVES	1
PROCEDURES	2
Timber Sample	2
Logging, Transportation, and Scaling	2
Sawing	2
Lumber Grading	4
Cubic Volume: Logs, Chips, and Sawdust	6
SUMMARY OF RESULTS	7
Export Yield Compared with PLIB	8
APPENDIX I. Tabular Lumber Yield Data by PLIB Grades	11
APPENDIX II. Tabular Lumber Yield Data by Export Grades	27

INTRODUCTION

Southeastern Alaska contains an estimated 68 billion board feet of old-growth Sitka spruce (*Picea sitchensis* (Bong.) Carr.) timber.^{1/} During the past 20 years, there has been a tenfold increase in the use of this resource for lumber and pulp and a shift from the production of boards to thicker export cants. Since the early 1960's, most of this increase in timber production has been exported to Japan. In 1963, about 43 million board feet of Sitka spruce lumber was exported to Japan--in 1970 this volume had increased to 219 million board feet.^{2/}

Most of the Sitka spruce sawtimber harvested in southeastern Alaska is cut from National Forest lands. Before it can be exported, this timber must receive primary manufacturing in accordance with an act of the U.S. Congress.^{3/} Primary sawmill manufacturing is defined by the U.S. Forest Service as the log breakdown process wherein logs are reduced in size by sawing to the extent that the residual cants, slabs, or planks do not exceed a nominal 8 inches in thickness.^{4/}

The lumber market for mills in southeastern Alaska is primarily an export cant market. A small amount is sold for local consumption, and an occasional shipment of the higher-grade boards, produced incidentally to cant manufacture, is shipped to domestic markets outside Alaska. The production of lumber for domestic use

outside Alaska is restricted by the lack of economic transportation facilities.

To reflect this major shift from the production of typical shop, dimension, board, and clear lumber items^{5/} to the manufacture of primarily export cants, a recovery study was made by the Pacific Northwest Forest and Range Experiment Station, U. S. Forest Service, in cooperation with the Wrangell Lumber Company, Wrangell, Alaska.

This report describes the study objectives, procedures, and the results of sawing a sample of typical old-growth Sitka spruce according to current manufacturing practices in southeastern Alaska.

OBJECTIVES

The main purpose of the study was to determine the kind and volume of lumber that would be produced under current industrial manufacturing practices from the various grades and sizes of Sitka spruce logs available to sawmills in southeastern Alaska. This up-to-date lumber yield information was needed by the public agencies and the timber industry to provide a better basis for appraising timber and for evaluating the quality of Sitka spruce sawtimber, particularly that on the Tongass National Forest.

Specific timber quality and yield data were also obtained by the Pacific Northwest Forest and Range Experiment Station for the purpose of developing a tree grading system for Sitka spruce.

¹O. Keith Hutchison. Alaska's forest resource. Portland, Oreg., Pac. Northwest Forest & Range Exp. Stn., USDA Forest Serv. Resour. Bull. PNW-19, 74 p., illus., 1967.

²David R. Darr. Production, prices, employment, and trade, fourth quarter 1970. Portland, Oreg., Pac. Northwest Forest & Range Exp. Stn., USDA Forest Serv., 57 p., illus., 1971.

³U.S. Congress Act of April 12, 1926, exportation of timber (44 Stat. 242; 16 U.S.C. 616).

⁴USDA Forest Service. Export and primary manufacture policy, National Forests of Alaska. In Forest Serv. Manual, sect. 2410.3-1, Reg. 10 suppl. 1969.

⁵Lester J. Sullivan and John F. Shields. Lumber grade recovery from old-growth Sitka spruce on the South Tongass National Forest. Mimeogr. rep., USDA Forest Serv., Juneau, Alaska, 1958.

An investigation of lumber prices to augment the yield information was beyond the scope of the study. Reliable and current information on the value of cants in Japanese markets is not generally available, particularly with respect to detailed prices by cant grades and sizes. Possible sources of general information on prices include the U. S. Treasury Department, Bureau of Customs; the University of Alaska at Fairbanks; and the State of Alaska Department of Commerce, Juneau. The Bank of Japan, Tokyo, is also a possible source of cant price information.

PROCEDURES

TIMBER SAMPLE

A sample was selected of about 400 trees, as representative as possible of the full range of size and quality of commercial sawtimber in southeastern Alaska. The trees were obtained from 18 widely distributed logging operations on the North and South Tongass National Forests as shown in figure 1. The timber stand in each of these locations was considered typical of the timber in that particular area. Within each designated area, individual sample trees were selected on the basis of six tree size classes and three stem quality classes. Approximately the same number of trees were selected in each size-quality grouping.

The total sample was not intended to be representative of a typical log mix for any particular sawmill. For example, some of the poorer quality or smaller logs included in the study might have normally been processed for pulp. The objective, as previously stated, was to obtain adequate saw log recovery information for the full range of size and quality of timber available in southeastern Alaska.

LOGGING, TRANSPORTATION, AND SCALING

The sample trees were selected, logged, and sawn in two approximately equal groups. The first group was logged and sawn in 1965, the other in 1967. This interruption was necessary because of major alterations required in the log and lumber storage facilities at the Wrangell mill. For each group of trees, the procedure for selection, logging, and sawing was identical.

The study trees were felled and bucked into saw logs by the cooperating logging contractors according to normal industry practice in southeast Alaska. Each log was tagged in the woods to identify its origin with respect to sample area, tree, and position in the tree. The logs from each area were then assembled into rafts and towed to the Wrangell mill for storage, scaling, and grading prior to sawing. The Puget Sound Log Scaling and Grading Bureau graded and scaled all study logs in the mill storage pond according to Bureau rules.^{6/}

Some 400 sample trees produced 1,009 merchantable logs. Tables 1 and 2 show the distribution of the study logs by log grade, length, and scaling diameter. Three percent of all study logs were Select grade, 7 percent No. 1, 43 percent No. 2, and 47 percent No. 3 grade logs.

SAWING

The study logs were sawn under normal production conditions at the Wrangell Lumber Company mill, Wrangell, Alaska. Mill production equipment included a single-cut bandsaw, edger, and a 40-foot gang trimmer. Logs longer than 40 feet were bucked before sawing to accommodate the mill equipment.

⁶Official log scaling and grading rules for the Puget Sound Log Scaling & Grading Bureau, Tacoma, Washington, January 1, 1969.

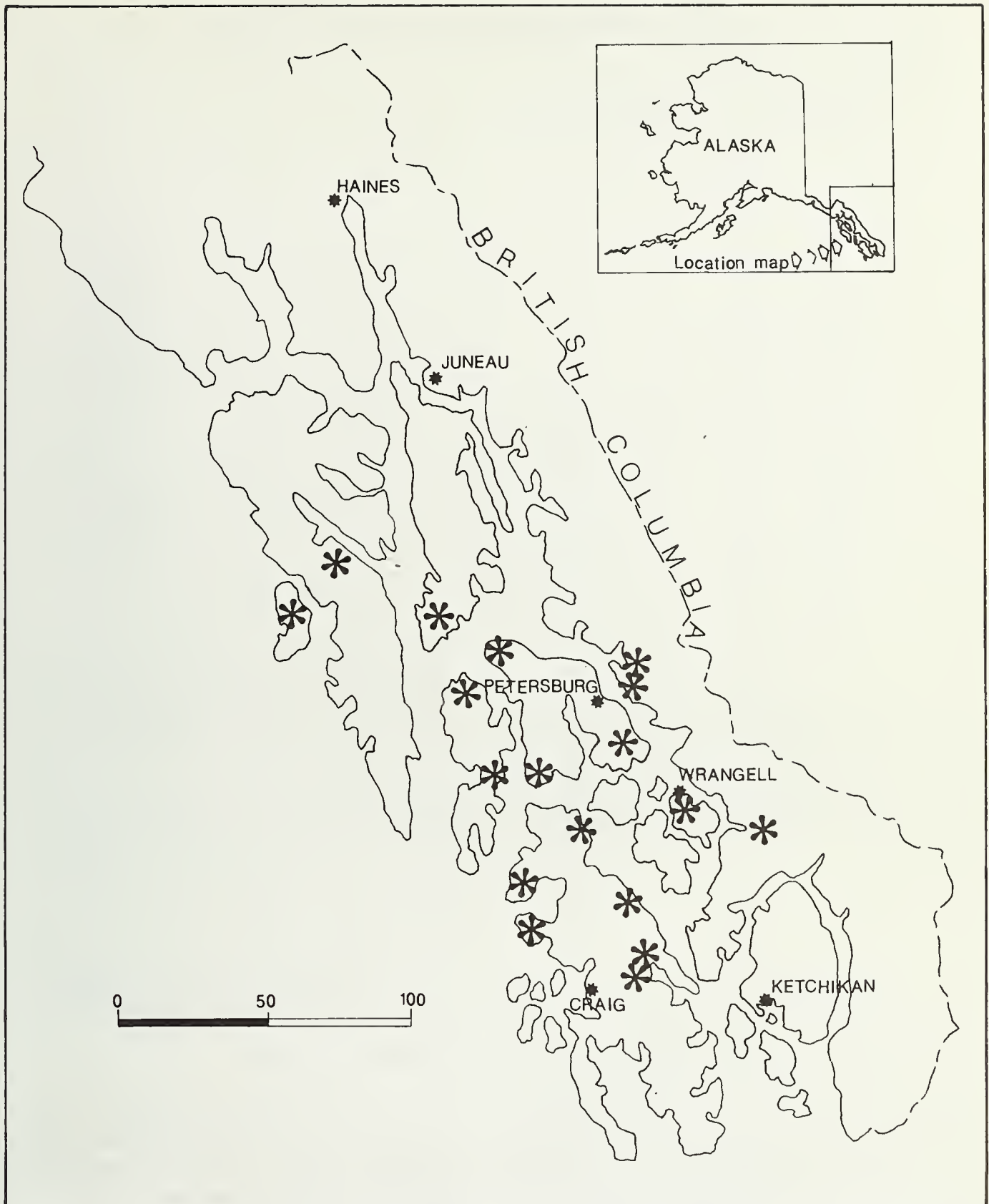


Figure 1.—Approximate location of the 18 sample areas.

Table 1.—The distribution of study logs by length¹ and grade²

Log length (feet)	Select	No. 1	No. 2	No. 3	All grades
----- <i>Number</i> -----					
12	--	--	1	1	2
14	--	--	2	2	4
16	--	--	2	9	11
18	--	--	--	10	10
20	--	--	3	13	16
22	--	--	2	9	11
24	6	5	23	23	57
26	6	8	19	28	61
28	--	2	11	19	32
30	7	5	19	21	52
32	1	6	45	64	116
34	4	9	21	20	54
36	--	3	27	33	63
38	--	--	3	15	18
40	3	24	108	69	204
42	--	--	15	18	33
44	--	--	41	29	76
46	--	--	8	9	17
48	1	4	81	72	158
50	--	--	5	8	13
52	--	--	--	--	--
54	--	--	--	1	1
Total	28	72	436	473	1,009

¹/ Woods-length logs. Logs longer than 40 feet were bucked at the mill to shorter lengths for sawing.

²/ As determined by the Puget Sound Log Scaling and Grading Bureau in the mill pond for woods-length logs.

In accordance with study objectives, the logs were cut to recover the optimum value of each log, consistent with the company's normal manufacturing procedures for producing mainly rough green cants for export to Japan (fig. 2). About 98 percent of the lumber volume produced was in cants 3 to 8 inches in thickness; and 0.7 percent was manufactured into ship stanchions, 9 and 10 inches in thickness. Less than 2 percent was manufactured into 2-inch dimension and 1-inch boards and graded under West Coast Lumber Inspection Bureau (WCLIB) rules.

During the sawing, each piece of lumber was identified by log and tree.

LUMBER GRADING

All cants (98 percent of the study lumber) were graded by two different grading systems. In this report these systems are designated as:

1. PLIB
2. Export

The PLIB grades were based on the export grading and dressing rules for

Table 2.—The distribution of study logs¹ by scaling diameter and grade

Log diameter (inches)	Select	No. 1	No. 2	No. 3	All grades
<i>Number</i>					
6	--	--	--	12	12
7	--	--	--	28	28
8	--	--	--	35	35
9	--	--	--	40	40
10	--	--	--	34	34
11	--	--	--	39	39
12	--	--	--	54	54
13	--	--	--	52	52
14	--	--	17	24	41
15	--	--	25	21	46
16	--	--	27	14	41
17	--	--	19	13	32
18	--	--	37	14	51
19	--	--	24	10	34
20	--	--	20	7	27
21	--	--	30	8	38
22	--	--	25	7	32
23	--	--	24	8	32
24	--	1	21	5	27
25	--	3	20	11	34
26	--	3	12	6	21
27	--	7	10	4	21
28	--	7	11	5	23
29	--	6	15	1	22
30	2	8	12	2	24
31	--	5	7	3	15
32	2	1	6	1	10
33	1	4	7	2	14
34	1	2	8	2	13
35	4	1	5	--	10
36	--	--	2	1	3
37	--	1	4	2	7
38	1	2	8	1	12
39	--	1	5	1	7
40	2	2	6	1	11
41	2	2	1	--	5
42	2	3	5	--	10
43	--	--	3	--	3
44	--	1	5	1	7
45	2	1	2	--	5
46	1	1	5	--	7
47	1	1	1	--	3
48	1	1	1	1	4
49	2	2	1	2	7
50	--	1	--	--	1
51	1	--	2	--	3
52	--	1	1	--	2
53	2	2	--	--	4
54	--	--	1	1	2
55	1	1	--	--	2
56	--	1	1	--	2
Total	28	72	436	473	1,009

¹/ Woods-length logs. Logs longer than 40 feet were bucked at the mill to shorter lengths for sawing.



Figure 2.—Study cants being graded and tallied on green chain.

Sitka spruce, R List 1951, of the Pacific Lumber Inspection Bureau, Seattle, Washington, and the West Coast Lumber Inspection Bureau Rule No. 15.^{7/} A PLIB grading supervisor applied the following cant grades under these rules: No. 2 Clear, No. 3 Clear, Select Merchantable, No. 1 Merchantable, No. 2 Merchantable, No. 3 Common, Factory Select, No. 1 Shop, No. 2 Shop, and No. 3 Shop. The PLIB grader "pencil trimmed and ripped" many large cants with wane to establish their appropriate PLIB grade.

The Export grades applied to the study lumber were designated as Piano, A, B, and C. These grade classifications were used by the Wrangell Lumber Company for cants exported to Japan. They were

based primarily on confidential contract agreements between the company and the purchasers and no written specifications for the grades were available. A company grader applied these four export classifications to all study cants. As with PLIB grades, some cants were pencil ripped and trimmed to establish the export grades.

The minor amount (about 2 percent) of 2-inch dimension and 1-inch lumber produced with Export grades was graded under the West Coast Lumber Inspection Bureau Rule No. 15.

CUBIC VOLUME: LOGS, CHIPS, AND SAWDUST

In addition to the lumber grade and board-foot-volume data collected, the cubic volume of the logs, lumber, chippable residue, and sawdust was calculated for all study logs.

⁷Standard grading and dressing rules for Douglas-fir, west coast hemlock, Sitka spruce, and western red cedar lumber. No. 15, West Coast Lumber Inspection Bureau, Portland, Oregon. 1956.

The gross cubic log volume was computed by the following formula:

$$\text{Gross cubic log volume} = \frac{\pi L (D_s^2 + D_s D_1 + D_1^2)}{12}$$

where

D_s is the log scaling diameter,
small end

D_1 is the log scaling diameter,
large end

L is the log length.

The sawdust volumes were calculated by using an average saw kerf of 0.25 inch and the computed surface area of the lumber from each log.

The chippable residue volume was calculated by subtracting the lumber and sawdust volumes from the gross cubic log volume. This includes a small amount of sawdust produced from slabs, edgings, and trim ends.

SUMMARY OF RESULTS

A significant^{8/} difference in the average lumber recovery percent^{9/} was found among the four log grades as shown in table 3.

The differences in lumber tally volumes between the PLIB and Export grades in table 3 are primarily because of pencil trimming and ripping necessary to establish grade.

A significant linear relationship was found between lumber recovery and the log scaling diameter when all study logs were considered as a group, as shown in figure 3.

⁸Statistically significant at the 1-percent level; covariance analysis.

⁹The ratio of lumber tally to net log scale in percent (overrun).

Table 3.—Lumber recovery by log grade

Log grade	Number of logs	Net log scale	PLIB		Export	
			Lumber tally	Recovery	Lumber tally	Recovery
		- - - Board feet - - -		Percent	Board feet	Percent
Select	28	57,410	70,712	123.2	71,923	125.3
No. 1	72	122,060	145,355	119.0	147,443	120.8
No. 2	436	440,260	564,556	128.2	588,773	133.7
No. 3	473	154,480	224,701	145.4	243,023	157.3
All grades	1,009	774,210	1,005,424	129.9	1,051,162	135.8

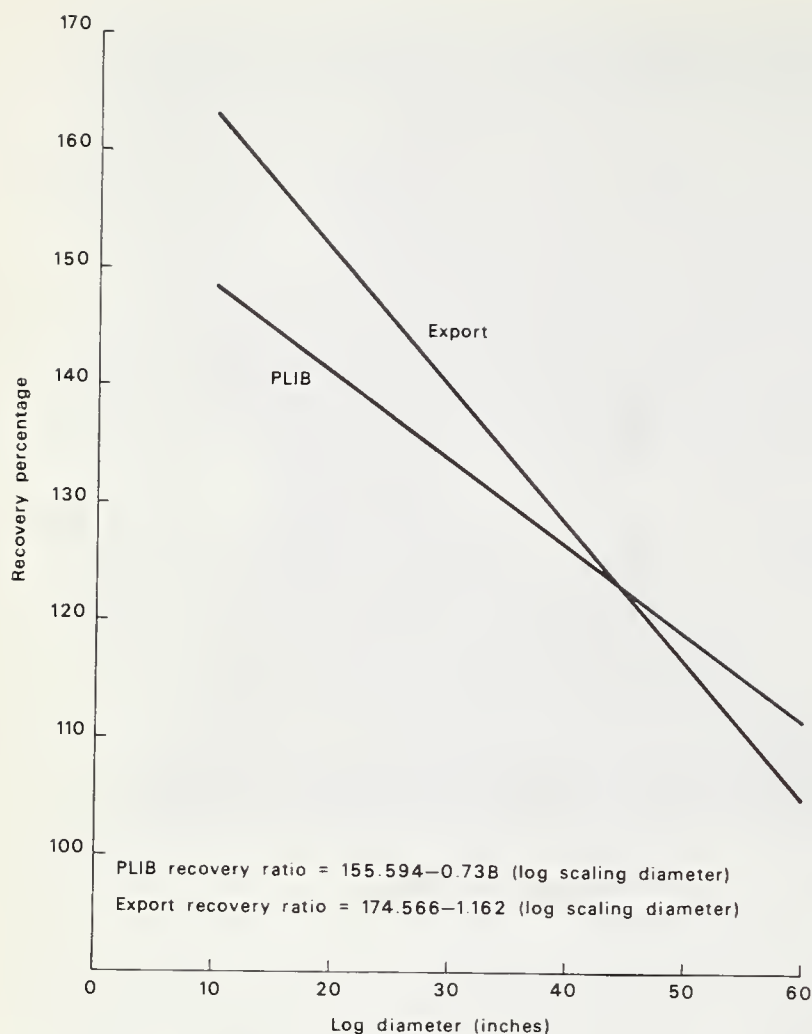


Figure 3.—The relationship of lumber recovery percent to log diameter for PLIB and Export lumber grades.

The average lumber grade yield for each log grade is shown in figures 4 and 5 for PLIB and Export grades.

The detailed lumber yield, chippable residue, and sawdust volume according to log size and log grade are shown in appendix I for the PLIB grades (tables 4 through 23) and in appendix II (tables 24 through 43) for the Export grading system.

EXPORT YIELD COMPARED WITH PLIB

The transient and confidential nature of the Export lumber grades makes it difficult, if not questionable, to compare the lumber yields by these classifications with the PLIB grades which are recognized

as an industrial standard. However, recognizing the limitations of the Export grade data, such a comparison was made for the cants produced from all study logs (all log grades). The results are summarized in figure 6.

As illustrated in figure 6, 77 percent of the volume in Export Piano grade was graded under PLIB as No. 2 and No. 3 Clear; 18 percent as PLIB Factory Select; 3 percent No. 1 Shop; Select Merchantable accounted for the remaining 2 percent.

For the Export A cants, 24 percent was No. 1 Shop; 20 percent Select Merchantable; 14 percent Factory Select; 12 percent No. 1 Merchantable; 10 percent No. 2 Merchantable; and 8 percent No. 2 and No. 3 Shop. Other PLIB grades accounted for the remaining 12 percent.

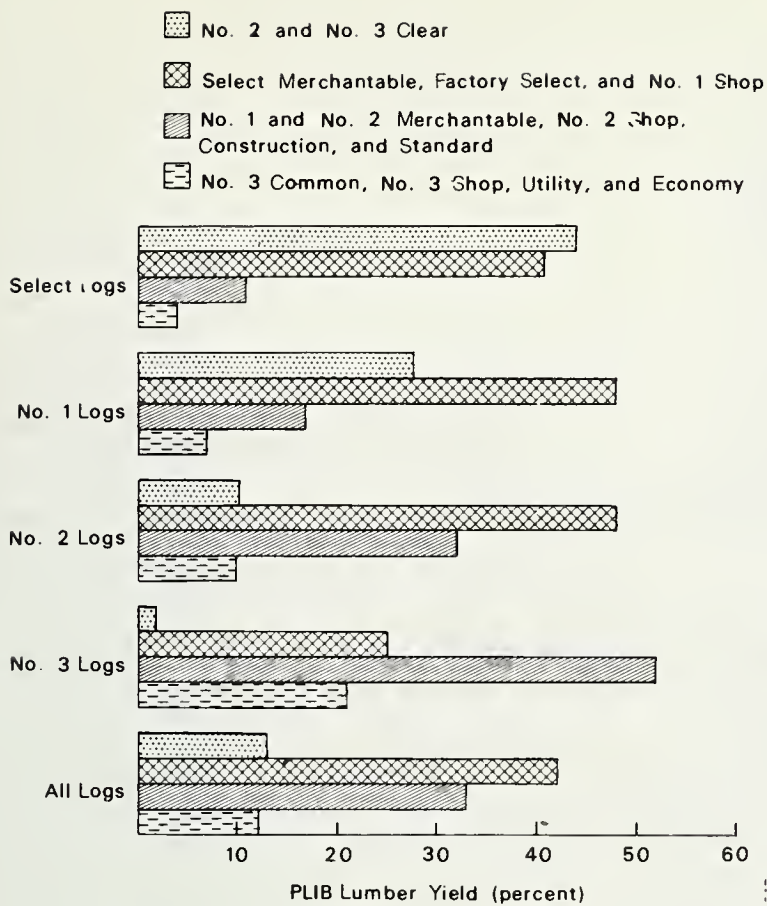


Figure 4.—Average yields of PLIB lumber grade groups for each log grade and all logs.

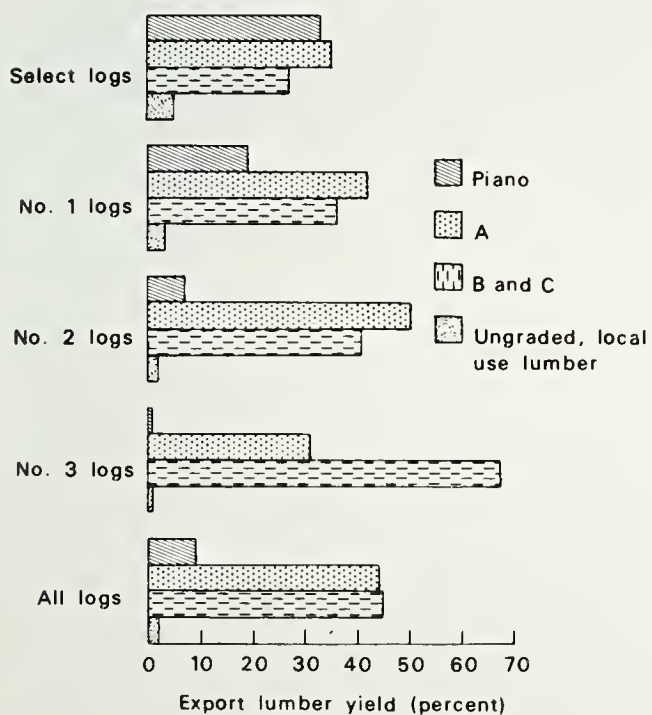


Figure 5.—Average yields of Export lumber grade groups for each log grade and all logs (including small amount of ungraded lumber for local use).

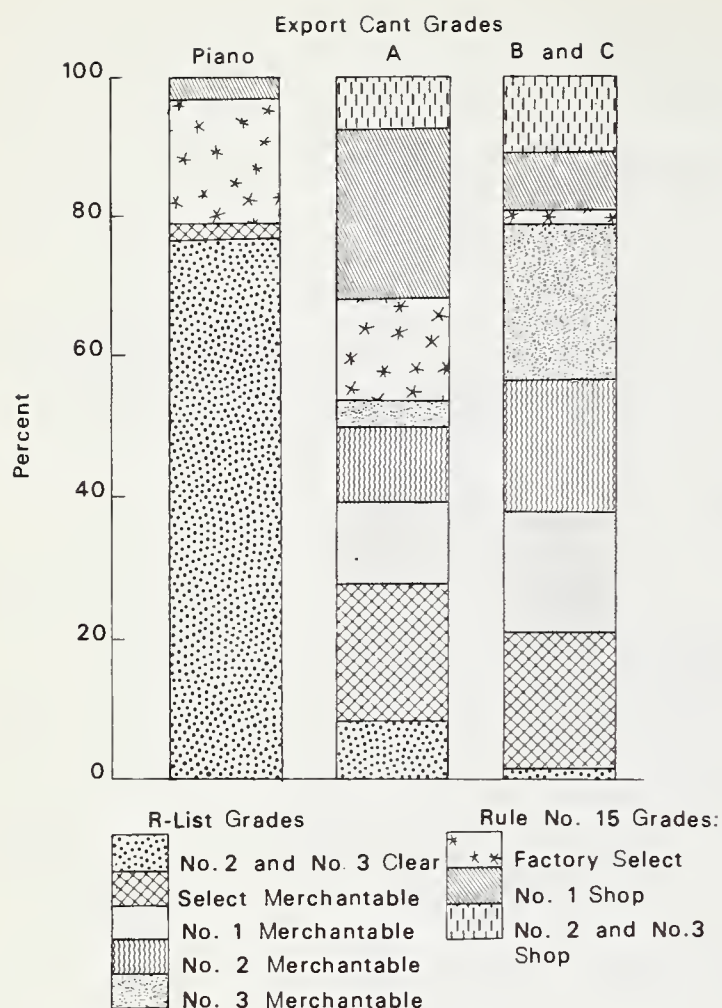


Figure 6.—A comparison of the PLIB and Export grades for all study logs.

For the Export B and C grades combined, 22 percent of the volume graded PLIB No. 3 Common; 19 percent Select Merchantable; 19 percent No. 2 Merchant-

able; 17 percent No. 1 Merchantable; 8 percent No. 1 Shop, and the remaining 15 percent in other PLIB grades.

APPENDIX I

TABULAR LUMBER YIELD DATA

by

PLIB Grades

Table 4.—Summary of log scale, PLIB lumber tally, and cubic volumes by diameter classes—Select logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		PLIB lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
		Board feet		Percent		Cubic feet		Percent		Cubic feet
30	2	3,040	2,860	3,812	133	472.23	337.95	72	24.44	109.84
31	---	---	---	---	---	---	---	---	---	---
32	2	3,220	2,900	4,319	149	593.07	384.32	65	29.84	178.91
33	1	2,490	2,280	1,966	86	367.30	175.61	48	13.10	178.59
34	1	1,700	1,400	1,939	138	291.20	175.49	60	16.61	99.10
35	4	7,660	6,590	8,361	127	1,393.23	747.33	54	59.55	586.35
36	---	---	---	---	---	---	---	---	---	---
37	---	---	---	---	---	---	---	---	---	---
38	1	2,000	1,730	2,622	152	290.24	233.43	80	18.40	39.11
39	---	---	---	---	---	---	---	---	---	---
40	2	3,770	3,140	3,790	121	805.65	337.29	42	25.37	442.99
41	2	4,450	3,810	4,694	123	1,021.36	418.54	41	32.33	570.49
42	2	5,040	3,800	4,531	119	734.09	405.57	55	30.74	297.78
43	---	---	---	---	---	---	---	---	---	---
44	---	---	---	---	---	---	---	---	---	---
45	2	4,940	4,400	5,621	128	813.27	399.98	61	38.18	275.11
46	1	2,970	2,660	3,229	121	619.73	291.46	47	23.32	304.95
47	1	2,480	2,090	2,765	132	480.03	245.12	51	17.88	217.03
48	1	2,600	2,380	2,844	119	361.68	252.86	70	18.07	90.75
49	2	5,840	5,610	5,699	102	1,036.98	508.68	49	37.99	490.31
50	---	---	---	---	---	---	---	---	---	---
51	1	3,650	2,660	3,573	134	695.26	318.39	46	24.00	352.87
52	---	---	---	---	---	---	---	---	---	---
53	2	6,840	6,060	7,379	122	989.14	655.51	66	48.01	285.62
54	---	---	---	---	---	---	---	---	---	---
55	1	3,400	3,040	3,562	117	599.46	315.12	53	22.32	262.02
Total	28	66,090	57,410	70,712	123	11,564.62	6,302.65	54	480.15	4,781.82

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} PLIB lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 5.—Summary of log scale, PLIB lumber tally, and cubic volumes by diameter classes—No. 1 logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		PLIB lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
		Board feet		Percent		Cubic feet		Percent		Cubic feet
24	1	860	800	1,044	130	141.00	92.56	66	6.57	41.87
25	3	3,730	3,670	4,498	123	698.56	399.82	57	29.17	269.57
26	3	4,290	3,700	4,364	118	803.13	393.42	49	31.14	378.57
27	7	9,520	8,850	10,526	119	1,628.04	938.02	58	66.83	623.19
28	7	10,760	10,050	10,840	108	2,019.03	967.79	48	77.73	973.51
29	6	8,430	7,800	9,050	116	1,621.17	812.34	50	60.61	748.22
30	8	12,570	11,300	13,084	116	2,186.19	1,175.39	54	88.53	922.27
31	5	7,820	6,790	8,111	119	1,514.21	722.02	48	54.98	737.21
32	1	1,560	1,420	859	60	507.81	76.35	15	5.93	425.53
33	4	6,670	5,450	8,029	147	1,218.02	711.84	58	51.17	455.01
34	2	3,300	2,860	3,909	137	505.01	346.68	69	25.09	133.24
35	1	1,750	1,600	1,876	117	334.46	167.98	50	12.83	153.65
36	---	---	---	---	---	---	---	---	---	---
37	1	1,670	1,300	2,022	156	223.35	180.25	81	14.16	28.94
38	2	4,920	3,900	4,877	125	661.78	434.36	66	33.03	194.39
39	1	3,690	3,610	3,471	96	895.34	307.50	34	21.93	565.91
40	2	4,810	3,940	3,525	89	732.97	314.96	43	24.84	393.17
41	2	6,670	6,060	7,420	122	1,248.85	658.01	53	47.72	543.12
42	3	6,880	5,960	8,214	138	1,083.75	729.51	67	54.72	299.52
43	---	---	---	---	---	---	---	---	---	---
44	1	2,590	2,350	3,470	148	560.51	307.28	55	22.61	230.62
45	1	2,860	2,350	3,390	144	398.41	301.40	76	22.20	74.81
46	1	2,580	2,130	2,645	121	331.14	235.09	71	18.30	77.75
47	1	3,520	2,660	3,633	137	493.09	324.82	66	27.24	141.03
48	1	2,600	1,940	2,901	150	334.10	256.94	77	18.00	59.16
49	2	6,290	5,250	7,081	135	1,325.09	633.59	48	46.18	645.32
50	1	3,040	2,600	2,500	96	520.42	222.17	43	15.80	282.45
51	---	---	---	---	---	---	---	---	---	---
52	1	3,800	3,510	4,090	117	677.89	363.60	54	27.55	286.74
53	2	7,630	3,710	2,423	65	1,207.08	216.52	18	17.86	972.70
54	---	---	---	---	---	---	---	---	---	---
55	1	3,970	3,290	4,088	124	523.26	364.01	70	28.03	131.22
56	1	3,820	3,160	3,415	108	720.26	306.65	43	23.54	390.07
Total	72	142,600	122,060	145,355	119	25,113.92	12,960.87	52	974.29	11,178.76

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} PLIB lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 6.—Summary of log scale, PLIB lumber tally, and cubic volumes by diameter classes—No. 2 logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		PLIB lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
- - - - - Board feet - - - - - Percent - - - - - Cubic feet - - - - - Percent - - - - - Cubic feet - - - - -										
14	17	5,100	4,960	6,814	137	1,100.15	604.90	55	43.15	452.10
15	25	9,610	9,380	11,474	122	2,069.12	1,018.11	49	75.38	975.63
16	27	11,490	11,130	14,749	133	2,447.93	1,305.91	53	92.90	1,049.12
17	19	9,280	8,950	10,759	120	1,840.48	958.49	52	69.18	812.81
18	37	21,370	20,490	27,030	132	4,339.71	2,388.00	55	160.50	1,791.21
19	24	17,160	16,290	20,892	128	3,170.13	1,847.71	58	127.12	1,195.30
20	20	16,080	15,480	19,674	127	2,822.80	1,735.02	61	117.83	969.95
21	30	25,520	24,710	29,840	121	4,582.35	2,644.31	58	186.38	1,751.66
22	25	21,880	20,690	28,856	139	4,108.03	2,555.17	62	179.46	1,373.40
23	24	21,160	19,800	24,495	124	3,605.92	2,170.18	60	152.85	1,282.89
24	21	23,940	23,060	28,899	125	4,189.01	2,576.30	62	186.37	1,426.34
25	20	24,420	23,530	29,329	125	4,293.02	2,602.97	61	184.17	1,505.88
26	12	14,450	13,110	15,747	120	2,681.09	1,396.82	52	102.81	1,181.46
27	10	13,430	12,440	14,689	118	2,106.24	1,311.04	62	92.65	702.55
28	11	17,440	16,600	19,402	117	3,093.82	1,718.92	56	121.28	1,253.62
29	15	20,670	18,390	24,724	134	3,337.57	2,175.72	65	155.40	1,006.45
30	12	18,410	15,550	23,101	149	3,599.95	2,057.02	57	147.25	1,395.68
31	7	11,290	9,810	12,124	124	1,976.97	1,079.35	55	82.30	815.32
32	6	9,380	8,730	11,587	133	1,720.77	1,028.11	60	74.80	617.86
33	7	14,240	11,630	15,013	129	2,442.13	1,327.62	54	97.43	1,017.08
34	8	14,750	13,520	18,593	138	2,319.18	1,650.33	71	116.86	551.99
35	5	10,570	9,570	12,872	135	1,854.07	1,148.25	62	87.25	618.57
36	2	3,810	3,040	4,127	136	604.98	366.98	61	26.88	211.12
37	4	9,280	7,890	10,502	133	1,477.86	935.06	63	69.92	472.88
38	8	17,540	14,170	19,650	139	2,857.70	1,744.72	61	125.47	987.51
39	5	12,450	10,830	13,873	128	2,276.83	1,232.28	54	92.19	952.36
40	6	15,480	11,410	15,115	132	2,544.56	1,339.12	53	96.41	1,109.03
41	1	2,540	1,680	2,601	155	343.02	230.42	67	15.67	96.93
42	5	15,150	11,090	13,712	124	2,059.25	1,220.47	59	91.94	746.84
43	3	7,840	6,180	7,288	118	1,033.15	648.62	63	44.94	339.59
44	5	16,720	14,430	17,412	121	3,045.13	1,536.45	50	111.78	1,396.90
45	2	5,330	3,420	4,692	137	695.60	415.24	60	29.64	250.72
46	5	15,070	9,360	12,224	131	2,056.99	1,098.29	53	82.43	876.27
47	1	2,690	2,280	2,919	128	353.77	262.64	74	18.93	72.20
48	1	2,600	2,380	2,969	125	480.15	263.91	55	19.53	196.71
49	1	3,140	2,020	2,506	124	421.55	222.79	53	17.78	180.98
50	--	--	--	--	--	--	--	--	--	--
51	2	7,060	5,440	5,695	105	1,187.41	505.77	43	37.81	643.83
52	1	3,290	2,690	3,455	128	429.61	304.80	71	22.36	102.45
53	--	--	--	--	--	--	--	--	--	--
54	1	3,280	1,320	2,055	156	494.48	181.67	37	13.80	299.01
55	--	--	--	--	--	--	--	--	--	--
56	1	3,530	2,810	3,198	114	496.42	284.05	57	21.44	190.93
Total	436	498,440	440,260	564,656	128	86,558.90	50,093.53	58	3,592.24	32,873.13

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} PLIB lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 7.—Summary of log scale, PLIB lumber tally, and cubic volumes by diameter classes—No. 3 logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		PLIB lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
----- Board feet ----- Percent ----- Cubic feet ----- Percent ----- Cubic feet -----										
6	12	870	870	1,518	174	246.53	136.33	55	10.96	99.24
7	28	1,960	1,930	2,850	148	578.21	256.83	44	22.30	299.08
8	35	3,300	3,170	4,909	155	1,015.84	437.82	43	36.16	541.86
9	40	4,180	3,950	6,081	154	1,186.06	543.82	46	44.63	597.61
10	34	5,600	5,330	7,383	139	1,327.84	656.82	49	51.34	619.68
11	39	6,390	6,200	8,200	132	1,557.81	730.15	47	56.95	770.71
12	54	12,440	12,000	17,600	147	2,980.51	1,561.48	52	113.83	1,305.20
13	52	14,290	13,580	19,209	141	3,310.89	1,708.89	52	125.11	1,476.89
14	24	6,390	5,950	9,379	158	1,470.05	833.21	57	60.43	576.41
15	21	7,230	6,320	8,745	138	1,493.12	776.88	52	55.52	660.72
16	14	5,890	5,080	7,113	140	1,196.71	630.36	53	43.61	522.74
17	13	5,600	4,830	7,310	151	1,091.97	648.81	59	47.38	395.78
18	14	6,430	5,550	8,420	152	1,199.86	748.17	62	53.37	398.32
19	10	4,800	4,080	5,747	141	882.76	510.70	58	36.56	335.50
20	7	3,180	2,040	3,495	171	563.88	311.53	55	23.65	228.70
21	8	6,640	5,750	8,243	143	1,145.02	729.43	64	51.35	364.24
22	7	6,050	4,980	6,790	136	1,029.18	602.64	59	43.14	383.40
23	8	8,500	6,670	9,517	143	1,363.26	847.69	62	62.55	453.02
24	5	6,020	4,980	6,506	131	957.92	579.70	61	41.86	336.36
25	11	10,210	7,810	11,866	152	1,628.66	1,053.97	65	75.25	499.44
26	6	5,570	4,250	5,750	135	852.39	509.99	60	37.85	304.55
27	4	3,980	2,410	4,605	191	625.49	409.83	66	28.69	186.97
28	5	5,830	4,390	8,677	198	893.98	767.74	86	53.09	73.15
29	1	2,010	1,790	1,777	99	300.50	164.42	55	12.40	123.68
30	2	2,950	2,380	3,301	139	495.64	293.48	59	21.22	180.94
31	3	6,160	5,280	6,314	120	998.64	564.10	56	39.28	395.26
32	1	2,430	1,840	1,916	104	347.62	170.68	49	12.25	164.69
33	2	3,230	1,560	1,877	120	440.68	166.28	38	12.20	262.20
34	2	3,200	2,900	4,375	151	504.06	387.69	77	28.19	88.18
35	--	--	--	--	--	--	--	--	--	--
36	1	1,500	580	1,178	203	224.43	104.37	47	7.33	112.73
37	2	4,120	2,490	5,180	208	596.62	452.76	76	33.49	110.37
38	1	2,140	1,930	2,465	128	324.17	219.36	68	16.18	88.63
39	1	2,240	1,230	2,693	219	366.63	243.11	66	17.70	105.82
40	1	1,660	830	1,442	174	227.54	128.50	56	10.49	88.55
41	--	--	--	--	--	--	--	--	--	--
42	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--
44	1	2,410	930	1,747	188	302.72	155.02	51	11.70	136.00
45	--	--	--	--	--	--	--	--	--	--
46	--	--	--	--	--	--	--	--	--	--
47	--	--	--	--	--	--	--	--	--	--
48	1	2,810	2,180	2,484	114	578.50	224.72	39	16.63	337.15
49	2	6,070	5,060	7,339	145	872.42	651.19	75	46.00	175.23
50	-	--	--	--	--	--	--	--	--	--
51	-	--	--	--	--	--	--	--	--	--
52	-	--	--	--	--	--	--	--	--	--
53	-	--	--	--	--	--	--	--	--	--
54	1	3,280	1,380	700	51	425.69	63.80	15	5.41	356.48
Total	473	187,560	154,480	224,701	145	35,603.80	19,982.27	56	1,466.05	14,155.48

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} PLIB lumber tally volume as percentage of net scale volume^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 8.—Summary of log scale, PLIB lumber tally, and cubic volumes by diameter classes—all logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		PLIB lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
----- Board feet ----- Percent ----- Cubic feet ----- Percent ----- Cubic feet -----										
6	12	870	870	1,518	174	246.53	136.33	55	10.96	99.24
7	28	1,960	1,930	2,850	148	578.21	256.83	44	22.30	299.08
8	35	3,300	3,170	4,909	155	1,015.84	437.82	43	36.16	541.86
9	40	4,180	3,950	6,081	154	1,186.06	543.82	46	44.63	597.61
10	34	5,600	5,330	7,383	139	1,327.84	656.82	49	51.34	619.68
11	39	6,390	6,200	8,200	132	1,557.81	730.15	47	56.95	770.71
12	54	12,440	12,000	17,600	147	2,980.51	1,561.48	52	113.83	1,305.20
13	52	14,290	13,580	19,209	141	3,310.89	1,708.89	52	125.11	1,476.89
14	41	11,490	10,910	16,193	148	2,570.20	1,438.11	56	103.58	1,028.51
15	46	16,840	15,700	20,219	129	3,562.24	1,794.99	50	130.90	1,636.35
16	41	17,380	16,210	21,862	135	3,644.64	1,936.27	53	136.51	1,571.86
17	32	14,880	13,780	18,069	131	2,932.45	1,607.30	55	116.56	1,208.59
18	51	27,800	26,040	35,450	136	5,539.57	3,136.17	57	213.87	2,189.53
19	34	21,960	20,370	26,639	131	4,052.89	2,358.41	58	163.68	1,530.80
20	27	19,260	17,520	23,169	132	3,386.68	2,046.55	60	141.48	1,198.65
21	38	32,160	30,460	38,083	125	5,727.37	3,373.74	59	237.73	2,115.90
22	32	27,930	25,670	35,646	139	5,137.21	3,157.81	61	222.60	1,756.80
23	32	29,660	26,470	34,012	128	4,969.18	3,017.87	61	215.40	1,735.91
24	27	30,820	28,840	36,449	126	5,287.93	3,248.56	61	234.80	1,804.57
25	34	38,360	35,010	45,693	131	6,620.24	4,056.76	61	288.59	2,274.89
26	21	24,310	21,060	25,861	123	4,336.61	2,300.23	53	171.80	1,864.58
27	21	26,930	23,700	29,820	126	4,359.77	2,658.89	61	188.17	1,512.71
28	23	34,030	31,040	38,919	125	6,006.83	3,454.45	58	252.10	2,300.28
29	22	31,110	27,980	35,551	127	5,259.24	3,152.48	60	228.41	1,878.35
30	24	36,970	32,090	43,298	135	6,754.01	3,863.84	57	281.44	2,608.73
31	15	25,270	21,880	26,549	121	4,489.82	2,365.47	53	176.56	1,947.79
32	10	16,590	14,890	18,681	125	3,169.27	1,659.46	52	122.82	1,386.99
33	14	26,630	20,920	26,885	129	4,468.13	2,381.35	53	173.90	1,912.88
34	13	22,950	20,680	28,816	139	3,619.45	2,560.19	71	186.75	872.51
35	10	19,980	17,760	23,115	130	3,581.76	2,063.56	58	159.63	1,358.57
36	3	5,310	3,620	5,305	147	829.41	471.35	57	34.21	323.85
37	7	15,070	11,680	17,704	152	2,297.83	1,568.07	68	117.57	612.19
38	12	26,600	21,730	29,614	136	4,134.59	2,631.87	64	193.08	1,309.64
39	7	18,380	15,670	20,037	128	3,538.80	1,782.89	50	131.82	1,624.09
40	11	25,720	19,320	23,872	124	4,310.72	2,119.87	49	157.11	2,033.74
41	5	13,660	11,550	14,715	127	2,613.23	1,306.97	50	95.72	1,210.54
42	10	27,070	20,850	26,457	127	3,877.09	2,355.55	61	177.40	1,344.14
43	3	7,840	6,180	7,288	118	1,033.15	648.62	63	44.94	339.59
44	7	21,720	17,710	22,629	128	3,908.36	1,998.75	51	146.09	1,763.52
45	5	13,130	10,170	13,703	135	1,907.28	1,216.62	64	90.02	600.64
46	7	20,620	14,200	18,098	127	3,007.86	1,624.84	54	124.05	1,258.97
47	3	8,690	7,030	9,317	133	1,326.89	832.58	63	64.05	430.26
48	4	10,610	8,880	11,198	126	1,754.43	998.43	57	72.23	683.77
49	7	21,340	17,940	22,625	126	3,656.04	2,016.25	55	147.95	1,491.84
50	1	3,040	2,600	2,500	96	520.42	222.17	43	15.80	282.45
51	3	10,710	8,100	9,268	114	1,882.67	824.16	44	61.81	996.70
52	2	7,090	6,200	7,545	122	1,107.50	668.40	60	49.91	389.19
53	4	14,470	9,770	9,802	100	2,196.22	872.03	40	65.87	1,258.32
54	2	6,560	2,700	2,755	102	920.17	245.47	27	19.21	655.49
55	2	7,370	6,330	7,650	121	1,122.72	679.13	60	50.35	393.24
56	2	7,350	5,970	6,613	111	1,216.68	590.70	49	44.98	581.00
Total	1,009	894,690	774,210	1,005,424	130	158,841.24	89,339.32	56	6,512.73	62,989.19

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} PLIB lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 9.—PLIB lumber grade yields for Select logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	No. 2 Clear	No. 3 Clear	Select Merchant-able	No. 1 Merchant-able	No. 2 Merchant-able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy
<i>Board feet</i>			<i>Percent of total lumber tally</i>													
30	2	3,812	35.31	4.67	10.62	--	4.30	--	21.62	23.24	--	--	--	0.24	--	--
31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32	2	4,319	42.65	3.70	4.98	--	--	5.83	23.76	13.45	4.91	--	0.23	.12	0.37	--
33	1	1,966	12.61	--	12.21	5.80	14.65	27.06	13.43	4.27	7.93	--	--	--	1.02	1.02
34	1	1,939	38.47	13.00	23.16	1.86	--	2.89	7.94	12.69	--	--	--	--	--	--
35	4	8,367	46.79	1.88	6.44	--	1.20	4.47	12.73	16.58	9.56	--	.10	.11	.10	.06
36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
38	1	2,622	52.59	--	5.49	--	--	1.83	12.81	26.05	--	--	1.22	--	--	--
39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
40	2	3,790	28.18	4.12	3.59	6.78	4.43	6.33	9.55	20.05	16.25	--	--	--	.71	--
41	2	4,694	46.02	1.92	6.86	--	2.56	3.45	20.52	9.03	9.01	--	.21	.26	.17	--
42	2	4,531	37.21	2.65	2.89	--	--	6.55	20.46	22.45	7.48	--	.31	--	--	--
43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
45	2	5,621	46.59	1.00	6.01	8.75	3.77	2.90	15.41	7.95	7.38	--	--	--	.23	--
46	1	3,229	53.61	.93	5.57	.87	--	7.99	10.22	14.18	5.20	--	.99	.43	--	--
47	1	2,765	42.03	2.60	--	--	--	--	29.95	15.84	9.11	--	.47	--	--	--
48	1	2,844	7.45	8.83	30.94	6.54	2.25	--	17.30	26.16	--	--	.25	.28	--	--
49	2	5,699	53.68	1.02	1.58	--	.42	2.74	19.32	11.32	9.09	--	.42	.21	--	.21
50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
51	1	3,573	43.46	--	10.08	1.34	3.72	2.55	4.03	25.36	7.72	--	.34	1.18	.22	--
52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
53	2	7,379	33.50	4.47	6.78	4.15	--	1.30	32.76	10.31	5.37	--	.45	.15	.77	--
54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
55	1	3,562	48.34	--	3.37	.67	.45	5.39	21.22	13.76	6.06	--	.28	.45	--	--
Total	28	70,712	40.90	2.70	7.14	2.11	1.82	4.13	18.18	15.50	6.77	--	.29	.20	.22	.05

Table 10.—PLIB lumber grade yields for No. 1 logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	No. 2 Clear	No. 3 Clear	Select Merchant-able	No. 1 Merchant-able	No. 2 Merchant-able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy
<i>Board feet</i>			<i>Percent of total lumber tally</i>													
24	1	1,044	--	--	18.39	5.17	7.66	4.60	26.82	8.05	29.31	--	--	--	--	--
25	3	4,498	8.94	--	25.46	17.01	4.00	8.14	12.25	19.54	4.27	--	0.40	--	--	--
26	3	4,364	11.27	--	14.30	8.20	--	5.09	21.91	24.06	12.74	1.24	.32	0.18	0.69	--
27	7	10,526	5.20	4.37	28.43	8.53	6.29	2.03	9.58	20.88	13.03	.76	.55	.23	.11	--
28	7	10,840	21.84	4.21	23.32	5.18	7.29	3.38	8.75	20.71	4.08	--	.66	.42	.18	--
29	6	9,050	19.93	4.54	24.00	2.24	3.66	2.39	12.45	19.64	10.76	--	.11	.22	.06	--
30	8	13,084	14.19	5.63	20.31	7.84	11.59	3.41	18.04	11.83	6.64	--	.40	--	.08	0.06
31	5	8,111	8.67	2.10	18.48	10.70	6.52	15.40	14.97	16.79	4.59	.49	1.11	.18	--	--
32	1	859	18.39	--	--	--	--	17.23	4.19	40.40	19.79	--	--	--	--	--
33	4	8,029	11.38	4.78	21.90	9.71	10.46	11.08	12.65	15.89	1.74	--	.07	.24	.07	--
34	2	3,909	26.86	1.38	14.27	6.57	1.23	9.00	11.56	15.35	13.20	--	--	.56	--	--
35	1	1,876	38.91	6.40	--	2.77	--	4.05	4.48	28.14	6.40	8.00	.85	--	--	--
36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	1	2,022	48.52	--	--	--	.94	--	19.29	13.40	16.12	--	1.14	.30	.30	--
38	2	4,877	21.71	3.28	15.21	2.83	1.09	11.40	9.70	16.24	15.77	2.58	.18	--	--	--
39	1	3,471	25.76	5.76	22.53	--	2.07	8.93	13.37	20.20	1.38	--	--	--	--	--
40	2	3,525	33.73	--	--	2.04	--	13.19	12.94	30.52	7.38	--	.20	--	--	--
41	2	7,420	39.47	1.94	3.23	4.12	2.26	7.71	19.12	17.61	4.04	--	.22	.26	--	--
42	3	8,214	42.20	1.07	2.26	.68	1.22	3.46	17.10	23.90	6.38	--	1.05	.68	--	--
43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
44	1	3,470	17.58	4.78	3.17	8.99	4.84	3.31	21.35	32.80	1.21	--	1.15	.32	.49	--
45	1	3,390	46.76	12.30	1.77	--	.80	6.67	12.01	16.08	2.48	--	.18	.97	--	--
46	1	2,645	39.32	--	16.71	2.27	3.93	--	10.06	23.71	2.12	--	1.44	.45	--	--
47	1	3,633	41.95	7.18	3.74	2.20	--	1.16	9.25	26.92	4.10	1.54	.52	.69	.74	--
48	1	2,901	23.78	12.82	15.72	11.58	--	8.27	10.86	3.72	13.24	--	--	--	--	--
49	2	7,081	36.69	.85	.79	.59	--	7.40	30.43	17.02	4.63	.23	.71	--	.66	--
50	1	2,500	24.80	--	6.72	--	2.80	17.36	22.44	16.20	7.20	--	2.00	.48	--	--
51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
52	1	4,090	37.70	6.06	2.44	--	1.32	7.97	51.67	22.25	5.72	--	.22	--	.64	--
53	2	2,423	27.20	.41	--	--	--	5.45	29.34	26.87	9.86	--	.54	--	.33	--
54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
55	1	4,088	39.36	5.41	5.48	--	--	--	23.85	10.47	13.45	1.37	.32	.20	.37	--
56	1	3,415	36.72	--	6.15	--	1.41	3.16	32.65	10.92	6.50	--	.56	.82	1.11	--
Total	72	145,355	24.27	3.53	13.79	4.97	4.03	6.14	15.73	18.83	7.38	.40	.50	.25	.18	.01

Table 11.—PLIB lumber grade yields for No. 2 logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	No. 2 Clear	No. 3 Clear	Select Merchant-able	No. 1 Merchant-able	No. 2 Merchant-able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy
<i>Board feet</i>			<i>Percent of total lumber tally</i>													
14	17	6,814	0.07	--	26.89	24.98	27.71	7.69	--	8.83	3.23	--	0.47	0.13	--	--
15	25	11,474	1.39	--	35.74	26.47	23.83	3.28	1.15	3.43	3.91	--	.51	.07	0.10	0.11
16	27	14,749	.47	--	29.94	21.41	21.89	8.33	--	13.26	3.93	--	.68	--	.09	--
17	19	10,759	.30	--	35.46	18.48	16.30	10.67	3.98	9.41	3.90	--	.72	.32	.47	--
18	37	27,030	.57	0.06	31.43	23.60	7.75	13.27	2.25	14.24	6.47	--	.29	.03	.04	--
19	24	20,892	.81	--	31.25	26.22	20.96	9.60	.40	6.50	4.00	--	.13	.01	.11	--
20	20	19,674	.41	--	33.63	19.06	19.37	12.08	1.39	10.43	3.18	--	.24	.15	.06	--
21	30	29,840	1.94	.91	26.35	24.83	17.62	6.49	4.13	12.18	4.92	0.24	.29	.10	--	--
22	25	28,856	1.98	.97	33.25	12.69	13.41	8.49	6.24	15.77	6.98	--	.23	.12	.03	.12
23	24	24,495	2.47	.89	29.21	16.28	16.89	8.71	5.22	13.74	6.32	--	.04	.13	.09	--
24	21	28,899	5.88	.98	32.10	13.57	13.40	9.13	5.09	12.56	6.21	.07	.78	.09	.13	--
25	20	29,329	4.53	.90	29.95	17.57	10.64	8.25	8.47	15.24	3.58	.47	.33	.06	--	--
26	12	15,747	10.06	1.88	18.87	5.63	8.85	9.81	8.88	24.39	11.33	--	.16	.03	.13	--
27	10	14,689	6.50	--	23.41	11.89	18.23	5.79	7.26	21.72	5.19	--	--	--	--	--
28	11	19,402	5.31	.62	23.28	11.36	11.72	14.49	7.28	19.02	6.80	--	--	--	.12	--
29	15	24,724	12.00	2.10	22.74	7.93	6.65	10.06	7.47	20.62	10.11	--	.17	.11	.02	.02
30	12	23,101	13.97	1.63	27.23	9.44	8.91	5.51	6.38	23.35	3.19	--	.26	.05	.10	--
31	7	12,124	9.59	6.29	14.85	8.44	10.40	14.82	4.96	17.16	12.91	.15	.25	.08	.11	--
32	6	11,587	10.87	.52	16.98	9.74	10.53	12.28	10.77	18.89	9.03	--	.23	.15	--	--
33	7	15,013	6.57	.33	8.37	5.36	8.84	14.69	15.18	27.10	12.07	.67	.31	.05	.31	.17
34	8	18,593	13.21	1.50	13.05	8.51	7.83	13.07	15.97	20.01	5.89	.32	.34	.06	.15	.09
35	5	12,872	24.67	1.32	12.65	1.63	4.50	5.62	16.43	22.90	9.60	--	.52	--	.16	--
36	2	3,127	11.32	2.91	1.94	8.53	15.73	21.13	13.25	11.10	12.75	1.36	--	--	--	--
37	4	10,502	17.83	3.92	6.63	5.98	4.27	10.53	20.27	17.56	11.32	--	1.16	.21	.31	--
38	8	19,650	14.99	1.23	9.05	4.98	8.17	7.69	22.71	19.54	10.76	--	.35	.31	.15	.07
39	5	13,873	26.68	1.56	8.03	6.29	4.18	7.78	16.70	17.26	10.62	--	.19	.39	.72	--
40	6	15,115	23.98	1.98	2.44	3.64	7.87	16.64	12.40	22.98	7.30	--	.21	.03	.34	.17
41	1	2,601	3.11	--	3.69	--	6.77	10.53	21.84	44.14	9.92	--	--	--	--	--
42	5	13,712	13.69	3.65	4.77	2.95	5.27	15.64	16.28	22.27	13.68	.59	.11	.31	.61	.19
43	3	7,288	3.66	4.12	9.82	12.57	8.34	8.93	15.82	25.26	10.04	--	.56	.80	.07	--
44	5	17,412	21.13	1.52	16.40	3.86	6.63	16.57	18.75	10.64	3.88	--	.45	.16	--	--
45	2	4,692	23.85	2.49	8.35	.90	5.46	2.37	23.74	18.95	13.30	--	--	--	.60	--
46	5	12,224	17.82	3.86	10.37	1.35	.69	7.89	23.16	18.51	15.03	--	.62	.29	.40	--
47	1	2,919	9.22	--	8.02	8.91	5.93	16.31	12.23	31.62	7.19	--	.17	.41	--	--
48	1	2,969	51.26	2.02	--	4.04	5.25	--	21.72	11.75	--	--	1.25	.27	2.43	--
49	1	2,506	6.42	--	.28	--	--	36.31	6.86	17.16	28.49	3.07	--	1.40	--	--
50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
51	2	5,695	13.59	.56	10.71	1.83	4.07	11.34	18.96	24.00	10.68	2.46	.49	.56	.74	--
52	1	3,455	20.26	3.01	16.79	--	2.52	--	20.38	24.46	11.17	--	.17	.72	.52	--
53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
54	1	2,055	23.45	--	4.28	--	11.29	18.39	18.78	13.82	9.98	--	--	--	--	--
55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
56	1	3,198	4.38	2.72	8.63	1.88	3.75	5.00	23.23	24.45	22.64	3.00	.31	--	--	--
Total	436	564,656	8.87	1.27	21.64	12.30	11.42	10.11	9.35	16.85	7.40	.15	.32	.13	.16	.03

Table 12.—PLIB lumber grade yields for No. 3 logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	No. 2 Clear	No. 3 Clear	Select Merchantable	No. 1 Merchantable	No. 2 Merchantable	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy
Board feet			Percent of total lumber tally													
6	12	1,518	--	--	5.47	34.25	29.45	26.61	--	4.22	--	--	--	--	--	--
7	28	2,850	3.09	--	24.49	32.28	32.60	3.37	--	--	1.40	--	2.77	--	--	--
8	35	4,909	--	--	30.86	26.40	33.06	8.03	--	--	--	1.22	.43	--	--	--
9	40	6,081	--	--	15.36	31.25	28.20	16.74	--	2.63	2.10	--	2.76	0.62	0.34	--
10	34	7,383	.04	--	17.24	32.29	36.45	11.82	--	.65	--	--	.68	.83	--	--
11	39	8,200	--	--	34.36	28.74	23.77	10.30	--	.73	1.27	--	.29	--	.43	--
12	54	17,600	--	--	19.86	30.06	33.19	10.43	1.07	4.41	.74	--	.20	--	.05	--
13	52	19,209	.50	0.14	22.18	25.73	32.15	10.70	.26	2.03	5.27	--	.49	.43	.03	0.09
14	24	9,379	--	--	18.91	28.13	29.17	19.94	--	1.96	1.58	--	.07	.17	.06	--
15	21	8,745	--	--	7.98	32.88	38.66	11.64	--	3.42	3.89	--	.51	.35	.62	.05
16	14	7,113	--	--	11.89	26.53	27.57	24.98	--	5.03	3.63	--	.22	.10	.04	--
17	13	7,310	--	--	4.57	19.59	24.54	47.52	--	2.79	.33	--	.07	.10	.31	.18
18	14	8,420	--	--	6.29	31.14	27.65	30.00	--	4.42	--	--	--	--	.50	--
19	10	5,747	--	--	8.14	19.63	28.52	36.56	.85	2.68	2.82	--	.35	.30	.16	--
20	7	3,495	--	--	1.80	19.51	33.79	35.48	--	--	8.18	--	.40	--	.83	--
21	8	8,243	.39	--	8.98	27.94	24.01	12.86	--	15.21	9.01	1.09	.30	.21	--	--
22	7	6,790	3.53	--	13.18	10.03	15.98	31.87	2.12	12.12	10.18	--	.12	.41	.10	.35
23	8	9,517	2.19	--	9.07	11.15	20.83	40.41	1.89	4.98	7.50	--	.29	.70	.94	.05
24	5	6,506	1.11	--	13.59	17.54	19.72	23.99	--	16.97	6.03	--	.74	.08	.25	--
25	11	11,866	.22	--	8.30	20.71	18.77	31.08	4.97	5.12	8.73	.84	.76	.21	.19	.09
26	6	5,750	2.80	--	11.03	19.10	14.40	33.74	3.83	9.79	4.14	--	.75	.14	.30	--
27	4	4,605	--	--	1.30	8.25	19.87	23.37	3.65	18.98	24.58	--	--	--	--	--
28	5	8,677	--	.03	8.63	10.14	19.55	14.86	13.26	21.41	11.86	--	--	--	--	.25
29	1	1,777	1.74	--	8.10	9.45	4.73	25.32	3.55	27.46	17.56	--	1.07	1.01	--	--
30	2	3,301	2.48	--	4.24	3.76	15.15	22.72	4.12	24.45	23.08	--	--	--	--	--
31	3	6,314	3.39	.57	2.49	5.31	16.85	45.09	2.26	16.72	6.94	--	.38	--	--	--
32	1	1,916	5.22	6.26	1.25	--	--	--	10.13	30.27	32.15	13.26	--	--	1.46	--
33	2	1,877	--	--	16.20	9.54	15.24	33.30	1.92	21.58	2.24	--	--	--	--	--
34	2	4,375	1.60	2.47	6.99	12.07	11.43	6.93	20.94	23.45	12.89	--	.25	.82	.16	--
35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36	1	1,178	--	--	32.00	2.04	19.52	46.43	--	--	--	--	--	--	--	--
37	2	5,180	2.43	1.08	3.71	9.88	23.86	19.03	5.60	20.46	13.94	--	--	--	--	--
38	1	2,465	2.43	2.27	--	4.38	6.77	11.76	7.63	24.67	37.89	2.19	--	--	--	--
39	1	2,693	8.91	--	4.68	1.49	8.69	10.25	16.34	21.61	28.04	--	--	--	--	--
40	1	1,442	18.24	6.87	1.87	--	--	15.95	10.68	11.37	34.12	--	--	--	.90	--
41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
44	1	1,747	--	--	--	33.89	11.28	32.05	8.19	14.60	--	--	--	--	--	--
45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
48	1	2,484	46.78	5.80	--	--	--	9.62	12.20	13.53	11.63	--	.44	--	--	--
49	2	7,339	10.71	--	8.01	3.60	12.81	7.98	16.79	25.58	13.65	.65	--	.22	--	--
50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
54	1	700	--	--	--	11.14	--	11.14	--	6.00	68.86	--	--	--	--	2.86
Total	473	224,701	1.82	.29	12.54	20.26	23.77	20.99	3.13	8.92	7.18	.27	.39	.20	.19	.05

Table 13.—PLIB lumber grade yields for all logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	No. 2 Clear	No. 3 Clear	Select Merchant-able	No. 1 Merchant-able	No. 2 Merchant-able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy
Board feet			Percent of total lumber yield													
6	12	1,518	--	--	5.47	34.26	29.45	26.61	--	4.22	--	--	--	--	--	--
7	28	2,850	3.09	--	24.49	32.28	32.60	3.37	--	--	1.40	--	2.77	--	--	--
8	35	4,909	--	--	30.86	26.40	33.06	8.03	--	--	--	1.22	.43	--	--	--
9	40	6,081	--	--	15.36	31.24	28.19	16.74	--	2.63	2.10	--	2.76	0.62	0.35	--
10	34	7,383	.04	--	17.24	32.29	36.45	11.82	--	.65	--	--	.68	.83	--	--
11	39	8,200	--	--	34.46	28.74	23.77	10.30	--	.73	1.27	--	.29	--	.43	--
12	54	17,600	--	--	19.86	30.06	33.19	10.43	1.07	4.41	.74	--	.20	--	.05	--
13	52	19,209	.47	0.14	22.19	25.74	32.16	10.70	.26	2.03	5.27	--	.49	.43	.03	0.09
14	41	16,193	.03	--	22.27	26.80	28.56	14.78	--	4.85	2.27	--	.24	.15	.04	--
15	46	20,219	.79	--	23.74	29.24	30.24	6.89	.65	3.42	3.90	--	.51	.19	.33	.08
16	41	21,862	.32	--	24.07	23.08	23.74	13.75	--	10.58	3.83	--	.53	.03	.07	--
17	32	18,069	.18	--	22.96	18.93	19.64	25.58	2.37	6.73	2.46	--	.45	.23	.41	.07
18	51	35,450	.43	.05	25.46	25.39	12.48	17.25	1.71	11.90	4.94	--	.22	.02	.15	--
19	34	26,639	.64	--	26.26	24.79	22.59	15.42	.50	5.67	3.75	--	.18	.08	.12	--
20	27	23,169	.35	--	28.83	19.13	21.54	15.61	1.18	8.86	3.94	--	.26	.13	.18	--
21	38	38,083	1.61	.71	22.59	25.50	19.00	7.87	3.23	12.84	5.81	.43	.29	.12	--	--
22	32	35,646	2.28	.79	29.43	12.19	13.90	12.95	5.46	15.07	7.34	--	.21	.18	.04	.17
23	32	34,012	2.39	.64	23.57	14.84	17.99	17.58	4.29	11.29	6.65	--	.11	.29	.33	.01
24	27	36,449	4.86	.77	28.41	14.04	14.37	11.65	4.80	13.22	6.84	.05	.75	.09	.15	--
25	34	45,693	3.85	.58	23.89	18.33	12.10	14.17	7.94	13.03	4.99	.52	.45	.10	.05	.02
26	21	25,861	8.65	1.14	16.35	9.06	8.59	14.33	9.95	21.09	9.97	.21	.32	.08	.26	--
27	21	29,820	5.04	1.54	21.77	10.14	14.27	7.18	7.52	21.00	10.96	.27	.19	.08	.04	--
28	23	38,919	8.73	1.49	20.03	9.37	12.23	11.48	9.02	20.02	7.17	--	.18	.12	.11	.06
29	22	35,551	13.51	2.62	22.33	6.56	5.79	8.87	8.55	20.71	10.65	--	.20	.18	.03	.01
30	24	43,298	15.04	2.98	21.92	7.69	9.79	5.70	11.07	19.94	5.47	--	.26	.05	.08	.02
31	15	26,549	7.83	3.65	13.02	8.38	10.75	22.20	7.38	16.95	8.95	.22	.54	.09	.05	--
32	10	18,681	17.99	1.82	11.81	6.04	6.53	9.76	13.40	19.79	10.94	1.36	.20	.12	.24	--
33	14	26,885	7.99	1.61	13.23	6.98	10.20	15.82	13.37	21.70	8.00	.37	.19	.10	.27	.17
34	13	28,816	15.00	2.40	12.98	8.34	6.95	10.90	15.59	19.41	7.55	.21	.26	.24	.12	.06
35	10	23,115	33.84	1.93	9.37	1.13	2.94	5.07	14.12	21.04	9.33	.65	.39	.04	.12	.02
36	3	5,305	8.80	2.26	8.61	7.09	16.57	26.75	10.31	8.63	9.92	1.06	--	--	--	--
37	7	17,704	16.83	2.64	5.02	6.44	9.62	11.82	15.87	17.93	12.64	--	.82	.16	.22	--
38	12	29,614	18.38	1.54	9.00	4.14	6.17	8.12	18.44	20.00	12.89	.61	.37	.21	.10	.05
39	7	20,037	23.86	2.08	10.09	4.55	4.42	8.31	16.08	18.35	11.36	--	.13	.27	.50	--
40	11	23,872	25.74	2.32	2.23	3.68	5.69	14.45	11.92	22.93	10.35	--	.16	.02	.39	.11
41	5	14,715	35.13	1.59	4.47	2.08	3.15	14.85	20.05	19.57	6.67	--	.18	.21	.05	--
42	10	26,457	26.57	2.68	3.67	1.74	3.11	10.30	17.25	22.80	10.35	.31	.43	.37	.31	.10
43	3	7,288	3.66	4.12	9.82	12.57	8.34	8.93	15.82	25.26	10.04	--	.56	.80	.07	--
44	7	22,629	18.96	1.90	13.11	6.96	6.72	15.74	18.33	14.34	3.17	--	.53	.17	.08	--
45	5	13,703	38.85	4.31	5.77	3.90	3.61	3.65	17.42	13.73	8.20	--	.04	.24	.30	--
46	7	18,098	27.35	2.77	10.44	1.40	1.04	6.76	18.94	18.50	11.39	--	.81	.34	.27	--
47	3	9,317	31.72	3.57	3.97	3.65	1.86	5.56	16.32	25.10	6.56	.60	.40	.40	.29	--
48	4	11,198	32.02	7.39	11.93	5.73	1.96	4.28	15.67	13.73	6.01	--	.49	.14	.64	--
49	7	22,625	29.19	.52	3.28	1.35	4.26	9.62	20.60	18.37	11.32	.62	.33	.28	.21	.05
50	1	2,500	24.80	--	6.72	--	2.80	17.36	22.44	16.20	7.20	--	2.00	.48	--	--
51	3	9,268	25.11	.35	10.47	1.64	3.94	7.95	13.21	24.53	9.54	1.51	.43	.80	.54	--
52	2	7,545	29.72	4.67	9.01	--	1.87	4.32	17.83	23.26	8.22	--	.20	.33	.58	--
53	4	9,802	31.94	3.47	5.10	3.12	--	2.33	31.91	14.41	6.48	--	.47	.11	.66	--
54	2	2,755	17.50	--	3.19	2.83	8.42	16.55	14.01	11.83	24.94	--	--	--	--	.73
55	2	7,650	43.54	2.75	4.50	.31	0.21	2.51	22.63	12.00	10.01	.73	.30	.31	.20	--
56	2	6,613	21.08	1.32	7.35	.91	2.54	4.05	28.10	17.47	14.31	1.45	.44	.42	.57	--
Total	1,009	1,005,424	11.77	1.48	17.43	12.34	12.48	11.52	9.50	15.25	7.29	.20	.36	.17	.17	.03

Table 14.—The distribution of study lumber by PLIB grade, thickness, and width for Select logs

Thickness	Width	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construc- tion	Standard	Utility	Economy	Lumber volume		
																Percent	Board feet	
Inches		Percent																
1	2	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	1/	3	
	4	82.9	--	--	--	--	--	--	--	--	--	--	5.7	5.7	5.7	0.1	88	
	6	81.0	2.0	--	--	--	--	--	--	--	--	10.9	1.7	4.4	--	.4	294	
	8	62.3	20.7	17.0	--	--	--	--	--	--	--	--	--	--	--	.1	53	
2	4	69.0	11.1	2.6	--	--	--	--	--	--	--	5.2	7.8	4.3	--	.6	461	
	6	80.7	--	.8	--	--	--	1.2	--	--	--	9.4	5.6	1.3	1.0	1.7	1,190	
	7	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	14	
	8	58.9	--	4.8	--	--	--	15.4	6.2	--	--	--	2.5	12.2	--	.6	435	
	9	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	18	
	10	30.6	--	--	--	--	--	--	17.5	--	--	--	8.4	--	30.5	13.0	.2	154
	12	81.5	9.3	--	--	--	--	2.6	--	--	--	--	4.0	2.6	--	--	.8	604
3	4	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	20	
	5	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	17	
	6	38.1	--	19.6	--	--	3.1	6.7	28.9	3.6	--	--	--	--	--	.8	582	
	8	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/	28	
	10	--	--	100.0	--	--	--	--	--	--	--	--	--	--	--	.1	45	
4	4	80.1	--	10.8	--	--	9.1	--	--	--	--	--	--	--	--	.2	176	
	6	26.0	4.7	7.9	3.6	5.4	2.8	14.5	33.7	1.4	--	--	--	--	--	4.1	2,900	
	8	22.4	16.9	19.8	15.6	16.9	8.4	--	--	--	--	--	--	--	--	.5	379	
	12	74.1	--	--	--	--	--	25.9	--	--	--	--	--	--	--	.3	216	
5	6	18.0	7.4	2.8	--	2.8	--	19.3	43.7	6.0	--	--	--	--	--	1.5	1,085	
	8	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	.1	67	
6	6	29.7	2.7	4.4	1.8	1.0	5.3	21.5	21.4	12.2	--	--	--	--	--	14.2	9,960	
	7	17.6	--	4.2	--	8.1	8.5	34.2	24.9	2.5	--	--	--	--	--	2.3	1,631	
	8	34.8	3.3	10.8	1.2	1.6	4.9	20.8	15.7	6.9	--	--	--	--	--	24.0	16,873	
	9	38.3	--	--	--	--	19.1	27.7	4.3	10.6	--	--	--	--	--	1.8	1,269	
	10	45.7	4.4	7.3	4.8	1.9	3.5	14.1	13.1	5.2	--	--	--	--	--	17.7	12,411	
	11	30.8	--	2.8	--	--	--	10.9	31.8	23.7	--	--	--	--	--	3.3	2,321	
	12	51.6	1.4	8.0	1.4	1.4	5.8	18.9	6.3	5.2	--	--	--	--	--	14.3	10,068	
	13	--	--	--	--	--	--	18.4	23.7	57.9	--	--	--	--	--	.7	494	
	14	52.7	--	--	4.2	3.2	--	21.1	16.9	1.9	--	--	--	--	--	6.2	4,382	
	15	--	--	--	--	--	--	100.0	--	--	--	--	--	--	--	.6	390	
	16	89.8	--	--	--	--	--	--	10.2	--	--	--	--	--	--	1.3	944	
	18	66.7	--	33.3	--	--	--	--	--	--	--	--	--	--	--	.4	324	
	20	59.1	--	40.9	--	--	--	--	--	--	--	--	--	--	--	.6	440	
9	9	--	--	24.9	--	--	--	50.2	24.9	--	--	--	--	--	--	.5	377	
		Board feet																
Total		28,920	1,910	5,049	1,491	1,289	2,917	12,855	10,957	4,787	--	205	138	157	37	100.0	70,712	

1/ Percentage is less than 0.05.

Table 15.—The distribution of study lumber by PLIB grade, thickness, and width for No. 1 logs

Thickness	Width	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construc- tion	Standard	Utility	Economy	Lumber volume	
																Percent	Board feet
Inches		Percent															
1	4	61.8	7.2	3.6	--	--	--	--	--	--	--	11.2	10.1	3.2	2.9	0.2	278
	6	55.9	--	1.2	--	--	--	--	--	--	--	27.9	2.7	12.3	--	.4	666
	8	83.6	--	10.5	--	--	--	--	--	--	--	5.9	--	--	--	.1	152
	12	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	12
2	4	68.6	4.4	3.0	--	--	--	--	--	--	--	18.6	2.1	3.3	--	.5	704
	5	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	12
	6	66.6	2.4	2.3	--	--	--	--	--	--	--	13.9	10.1	4.7	--	1.0	1,390
	8	61.3	--	6.3	--	--	--	--	--	--	3.1	17.8	6.3	5.2	--	.5	763
	10	71.0	9.9	5.3	--	--	--	--	--	--	--	--	7.6	6.2	--	.3	436
	12	60.0	--	--	--	--	--	--	--	6.4	--	10.9	18.2	4.5	--	.3	440
	14	--	--	--	--	--	100.0	--	--	--	--	--	--	--	--	1/	33
3	4	--	--	--	--	--	--	34.5	20.7	44.8	--	--	--	--	--	1/	58
	5	--	--	--	--	--	--	--	100.0	--	--	--	--	--	--	1/	17
	6	39.5	2.0	8.6	5.4	4.3	4.6	13.2	12.9	9.5	--	--	--	--	--	.7	1,047
	8	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	28
	10	--	--	--	--	--	--	--	100.0	--	--	--	--	--	--	1/	35
4	4	31.8	--	8.9	20.2	9.3	7.7	4.1	9.6	2.4	6.0	--	--	--	--	.4	663
	5	68.9	--	31.1	--	--	--	--	--	--	--	--	--	--	--	.1	106
	6	34.6	2.6	5.4	4.3	2.7	3.2	12.9	29.4	4.6	.3	--	--	--	--	3.7	5,437
	8	35.3	--	14.2	17.3	6.1	7.4	9.3	10.4	--	--	--	--	--	--	.6	863
	10	35.5	--	44.3	--	--	9.2	--	--	--	--	--	--	--	--	.3	433
	12	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	.3	400
	13	63.0	--	--	37.0	--	--	--	--	--	--	--	--	--	--	.1	165
	14	50.0	--	50.0	--	--	--	--	--	--	--	--	--	--	--	.2	224
	16	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	.1	128
	5	5	66.7	--	--	--	--	--	--	33.3	--	--	--	--	--	--	.1
6		6.5	--	3.0	--	--	3.8	34.3	38.8	13.6	--	--	--	--	--	1.2	1,690
8		39.6	--	16.3	--	--	23.3	--	20.8	--	--	--	--	--	--	.2	287
6	6	16.3	3.0	8.0	4.1	3.8	9.3	15.8	26.2	12.8	.7	--	--	--	--	11.7	17,046
	7	3.8	--	1.7	3.3	--	5.9	36.8	31.2	17.3	--	--	--	--	--	2.8	4,039
	8	16.6	3.9	19.6	7.9	6.1	6.9	14.3	17.8	6.3	.6	--	--	--	--	27.3	39,648
	9	4.8	1.2	3.5	8.5	1.2	5.0	22.6	33.6	19.6	--	--	--	--	--	3.2	4,635
	10	23.0	4.4	19.6	4.4	5.2	5.7	14.4	16.0	6.8	.5	--	--	--	--	21.1	30,654
	11	10.9	--	4.2	6.7	--	9.2	10.9	45.6	12.5	--	--	--	--	--	1.8	2,629
	12	29.6	4.6	11.0	2.9	1.9	5.3	21.2	17.2	6.3	--	--	--	--	--	11.2	16,284
	13	--	--	--	--	--	41.7	45.8	--	12.5	--	--	--	--	--	.4	624
	14	48.1	3.1	3.1	2.9	1.7	4.8	23.3	10.7	2.3	--	--	--	--	--	5.0	7,224
	15	42.9	21.4	--	--	--	--	--	35.7	--	--	--	--	--	--	.6	840
	16	40.6	--	--	--	15.1	9.4	6.6	22.6	5.7	--	--	--	--	--	1.2	1,696
	17	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	.2	255
	18	80.6	9.0	--	--	--	--	10.4	--	--	--	--	--	--	--	.8	1,206
20	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	.3	380	
7	8	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	56
9	10	--	50.0	50.0	--	--	--	--	--	--	--	--	--	--	--	.1	210
10	10	--	--	90.0	--	10.0	--	--	--	--	--	--	--	--	--	.8	1,167
	12	--	--	100.0	--	--	--	--	--	--	--	--	--	--	--	.2	220
Board feet																	
Total		35,272	5,127	20,038	7,224	5,859	8,927	22,862	27,372	10,724	578	734	363	267	8	100.0	145,355

1/ Percentage is less than 0.05.

Table 16.—The distribution of study lumber by PLIB grade, thickness, and width for No. 2 logs

Thickness	Width	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construc- tion	Standard	Utility	Economy	Lumber volume		
																Percent	Board feet	
-- Inches --		-- Percent --																
1	4	35.8	1.0	22.0	--	--	--	--	--	--	--	16.4	12.9	11.1	0.8	0.1	396	
	6	56.9	--	.9	--	--	--	--	--	--	--	21.2	9.6	10.2	1.2	.1	750	
	8	39.8	--	5.9	--	--	--	--	--	--	--	19.5	28.0	6.8	--	1/	118	
	10	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	17	
	12	46.2	--	--	--	--	--	--	--	--	--	--	--	--	53.8	1/	26	
2	3	--	--	--	--	--	--	--	--	--	--	100.0	--	--	--	--	1/	10
	4	35.6	1.2	8.1	--	--	--	--	--	--	--	27.3	11.6	13.4	2.8	.2	1,376	
	6	46.4	2.9	4.2	--	--	--	1.5	1.4	--	--	20.6	9.1	11.1	2.8	.5	2,934	
	8	42.3	6.6	8.2	--	--	--	2.4	2.8	--	--	22.6	6.5	7.5	1.8	.2	1,432	
	9	--	--	--	--	--	--	--	--	--	--	100.0	--	--	--	1/	21	
	10	69.1	--	--	--	--	--	--	--	--	--	25.6	5.3	--	--	.1	430	
	12	43.6	4.5	--	--	--	--	--	3.2	--	--	19.5	10.4	18.8	--	.1	616	
3	6	17.6	--	10.0	7.2	11.3	10.4	10.9	25.9	4.3	2.4	--	--	--	--	.3	1,959	
	7	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/	24	
	8	17.0	--	35.6	22.8	8.8	9.2	3.3	3.3	--	--	--	--	--	--	.2	1,224	
	10	3.0	--	47.6	35.8	10.6	--	--	3.0	--	--	--	--	--	--	.2	990	
	12	37.1	--	--	62.9	--	--	--	--	--	--	--	--	--	--	1/	210	
	18	--	--	100.0	--	--	--	--	--	--	--	--	--	--	--	1/	54	
4	4	15.2	3.1	27.2	12.0	8.4	11.8	5.2	12.6	2.6	1.9	--	--	--	--	.2	1,017	
	5	18.6	--	10.6	--	22.2	8.8	11.4	17.8	10.6	--	--	--	--	--	.1	376	
	6	9.1	.3	10.9	12.7	13.0	14.3	9.0	26.3	4.4	--	--	--	--	--	2.2	12,204	
	7	--	--	37.8	13.4	22.0	26.8	--	--	--	--	--	--	--	--	1/	209	
	8	8.1	--	26.9	28.3	17.4	9.0	3.3	2.7	4.3	--	--	--	--	--	1.1	6,395	
	9	--	--	--	45.4	14.5	20.8	--	--	19.3	--	--	--	--	--	.1	288	
	10	4.0	--	35.1	24.3	20.8	9.0	3.6	3.2	--	--	--	--	--	--	.6	3,315	
	11	--	--	100.0	--	--	--	--	--	--	--	--	--	--	--	1/	73	
	12	5.4	--	30.9	34.6	29.1	--	--	--	--	--	--	--	--	--	.3	1,760	
	13	--	--	45.5	54.5	--	--	--	--	--	--	--	--	--	--	1/	191	
	14	--	--	21.8	78.2	--	--	--	--	--	--	--	--	--	--	.2	859	
	16	10.7	--	46.6	33.5	9.2	--	--	--	--	--	--	--	--	--	.2	1,397	
	18	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/	72	
	5	5	--	--	100.0	--	--	--	--	--	--	--	--	--	--	--	1/	37
6		5.7	1.3	12.0	6.5	4.8	9.2	15.6	31.9	13.0	--	--	--	--	--	1.1	6,390	
7		--	--	61.3	22.8	15.9	--	--	--	--	--	--	--	--	--	.1	333	
8		4.7	1.8	27.9	23.7	13.3	15.1	6.7	4.5	2.3	--	--	--	--	--	.6	3,406	
10		2.8	--	46.6	20.5	15.6	9.2	--	3.2	2.1	--	--	--	--	--	.4	2,359	
11		--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/	55	
12		--	--	34.1	46.4	19.5	--	--	--	--	--	--	--	--	--	.2	1,230	
14		--	--	40.6	43.8	--	15.6	--	--	--	--	--	--	--	--	.1	747	
6	16	--	--	29.7	45.5	11.9	12.9	--	--	--	--	--	--	--	--	.2	1,346	
	6	9.2	1.1	12.6	7.9	9.6	13.9	10.8	21.5	13.4	--	--	--	--	--	9.9	56,028	
	7	3.6	.5	8.7	6.2	10.0	14.7	12.7	30.1	13.5	--	--	--	--	--	3.1	17,473	
	8	10.1	1.9	23.9	11.4	11.5	12.5	9.4	12.2	7.0	.1	--	--	--	--	27.0	151,432	
	9	1.1	.7	14.5	6.8	6.4	11.7	10.8	32.1	15.5	.4	--	--	--	--	3.7	20,782	
	10	7.2	1.3	29.1	12.5	14.0	11.2	8.1	11.5	4.9	.2	--	--	--	--	21.4	119,720	
	11	2.1	--	8.6	5.4	3.6	8.1	20.6	41.5	9.4	.7	--	--	--	--	2.0	11,231	
	12	12.6	2.2	20.9	14.5	12.4	5.3	13.1	14.0	4.8	.2	--	--	--	--	9.5	53,796	
	13	5.8	--	11.5	13.3	11.7	8.5	4.6	34.7	9.9	--	--	--	--	--	1.1	6,449	
	14	10.9	1.2	16.4	17.2	15.0	6.2	13.2	13.7	6.2	--	--	--	--	--	4.9	27,685	
	15	--	--	23.8	6.4	1.7	--	5.4	47.8	14.9	--	--	--	--	--	.9	5,220	
	16	9.1	--	20.6	10.7	17.2	2.9	6.2	26.4	6.9	--	--	--	--	--	2.8	15,552	
	17	6.5	--	12.5	7.1	2.7	3.3	3.3	49.1	15.5	--	--	--	--	--	1.1	6,256	
	18	7.8	--	14.6	18.9	4.3	2.2	3.9	37.7	10.6	--	--	--	--	--	1.5	8,280	
	19	--	--	34.0	12.4	--	--	10.3	37.1	6.2	--	--	--	--	--	.3	1,843	
20	--	--	49.4	32.2	--	11.5	--	--	6.9	--	--	--	--	--	.3	1,740		
7	8	--	--	--	40.5	--	--	--	38.3	21.2	--	--	--	--	--	.1	438	
	10	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/	117	
8	8	--	--	--	--	--	--	--	100.0	--	--	--	--	--	--	1/	128	
	9	--	--	--	50.0	50.0	--	--	--	--	--	--	--	--	--	1/	240	
9	10	--	--	52.4	--	--	--	--	23.8	23.8	--	--	--	--	--	.1	559	
9	9	--	--	71.0	--	--	29.0	--	--	--	--	--	--	--	--	.2	931	
	10	--	--	75.0	25.0	--	--	--	--	--	--	--	--	--	--	.1	420	
10	10	--	--	66.7	33.3	--	--	--	--	--	--	--	--	--	--	.2	1,050	
	12	--	--	50.0	50.0	--	--	--	--	--	--	--	--	--	--	.1	640	
-- Board feet --		--																
Total		50,066	7,189	122,212	69,479	64,510	57,061	52,778	95,125	41,781	857	1,810	741	885	162	100.0	564,656	

1/ Percentage is less than 0.05.

Table 17.—The distribution of study lumber by PLIB grade, thickness, and width for No. 3 logs

Thickness	Width	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construc- tion	Standard	Utility	Economy	Lumber volume	
																Percent	Board feet
-- Inches --		-- Percent --															
1	4	12.0	1.0	11.0	--	--	--	--	--	--	--	24.3	19.2	27.4	5.1	0.1	292
	6	36.6	--	--	--	--	--	--	--	--	--	31.0	22.4	10.0	--	1/ 1	58
	8	23.9	--	--	--	--	--	--	--	--	--	--	50.0	26.1	--	1/ 1	46
2	4	12.0	6.4	21.7	--	--	--	--	--	--	--	13.6	17.4	25.9	3.0	.3	590
	6	9.5	--	8.8	--	--	--	--	--	--	--	35.4	21.6	11.6	13.1	.3	639
	8	8.4	--	15.9	--	--	--	2.9	3.1	--	--	41.9	15.8	12.0	--	.4	930
	10	29.1	--	31.6	--	--	--	15.7	--	--	--	23.6	--	--	--	.1	127
	12	60.0	--	--	--	--	--	--	--	--	--	40.0	--	--	--	.1	180
3	4	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/ 1	18
	5	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/ 1	23
	6	--	--	16.1	28.5	33.8	21.6	--	--	--	--	--	--	--	--	.4	915
	8	--	--	32.8	41.9	19.9	5.4	--	--	--	--	--	--	--	--	.3	744
	10	--	--	32.4	31.5	36.1	--	--	--	--	--	--	--	--	--	.2	540
4	4	6.1	--	7.9	43.4	21.8	17.0	--	--	3.8	--	--	--	--	--	.3	707
	5	50.0	--	--	50.0	--	--	--	--	--	--	--	--	--	--	1/ 1	46
	6	2.1	.5	14.7	24.6	22.5	24.6	--	5.4	5.6	--	--	--	--	--	3.2	7,328
	7	--	--	--	23.0	77.0	--	--	--	--	--	--	--	--	--	1/ 1	122
	8	.6	--	17.5	28.8	34.7	11.9	--	4.6	1.9	--	--	--	--	--	2.4	5,338
	9	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/ 1	108
	10	--	--	37.1	27.4	24.0	10.6	--	.9	--	--	--	--	--	--	1.9	4,288
	11	--	--	--	--	--	--	--	--	100.0	--	--	--	--	--	1/ 1	88
	12	--	--	13.2	42.3	35.0	9.5	--	--	--	--	--	--	--	--	1.0	2,176
	14	--	--	26.5	26.5	47.0	--	--	--	--	--	--	--	--	--	.3	774
5	5	--	--	--	25.3	37.7	19.9	--	17.1	--	--	--	--	--	--	.1	146
	6	--	--	20.3	8.1	23.3	15.0	--	18.0	15.3	--	--	--	--	--	.7	1,670
	7	--	--	--	31.0	--	45.3	--	--	23.7	--	--	--	--	--	.1	245
	8	2.2	--	29.5	35.1	22.0	11.2	--	--	--	--	--	--	--	--	.8	1,787
	9	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/ 1	75
	10	--	--	29.5	32.7	37.8	--	--	--	--	--	--	--	--	--	.8	1,808
	12	--	--	--	61.9	38.1	--	--	--	--	--	--	--	--	--	.5	1,180
6	14	--	--	--	--	62.6	37.4	--	--	--	--	--	--	--	--	.1	187
	6	1.6	--	8.4	15.5	18.9	30.8	3.2	8.2	12.4	1.0	--	--	--	--	11.8	26,670
	7	1.5	--	6.4	17.5	20.6	28.4	3.3	11.3	11.0	--	--	--	--	--	2.8	6,181
	8	2.3	.6	10.7	19.8	24.9	23.2	3.0	7.8	7.5	.2	--	--	--	--	25.3	56,371
	9	--	--	9.4	15.5	12.6	28.6	2.1	25.2	6.6	--	--	--	--	--	3.5	7,857
	10	1.5	--	13.6	19.6	25.8	22.0	4.0	6.8	6.5	.2	--	--	--	--	23.4	52,740
	11	--	--	5.7	6.7	20.7	16.0	11.0	28.5	11.4	--	--	--	--	--	1.5	3,289
	12	2.2	1.2	13.5	18.7	25.3	11.8	6.3	13.4	7.0	.6	--	--	--	--	8.4	18,900
	13	--	--	6.4	21.3	34.3	--	30.3	7.7	--	--	--	--	--	--	.9	2,015
	14	--	--	6.7	31.7	29.7	17.0	4.6	3.9	6.4	--	--	--	--	--	2.7	6,076
	15	--	--	--	--	30.3	13.9	26.7	29.1	--	--	--	--	--	--	.6	1,290
	16	--	4.7	10.7	16.6	24.1	15.0	2.4	19.4	7.1	--	--	--	--	--	1.8	4,048
	17	--	--	31.2	--	--	--	--	68.8	--	--	--	--	--	--	.2	544
	18	--	--	19.3	48.5	17.7	4.8	--	9.7	--	--	--	--	--	--	1.0	2,232
19	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	.1	228	
20	38.9	--	61.1	--	--	--	--	--	--	--	--	--	--	--	.2	360	
7	8	--	--	30.4	--	69.6	--	--	--	--	--	--	--	--	--	.1	214
8	8	--	--	--	39.9	60.1	--	--	--	--	--	--	--	--	--	.2	373
	10	--	--	50.0	50.0	--	--	--	--	--	--	--	--	--	--	.1	186
	12	--	--	--	--	--	100.0	--	--	--	--	--	--	--	--	.1	112
9	9	--	--	--	80.1	--	19.9	--	--	--	--	--	--	--	--	.2	472
	10	--	--	--	50.0	--	50.0	--	--	--	--	--	--	--	--	.1	210
10	10	--	--	28.6	28.6	14.3	28.5	--	--	--	--	--	--	--	--	.4	816
-- Board feet --																	
Total		4,055	649	27,994	45,830	53,824	46,918	6,977	19,912	16,017	606	886	480	436	117	100.0	224,701

1/ Percentage is less than 0.05.

Table 18.—The distribution of study lumber by PLIB grade, thickness, and width for all grade logs

Thickness	Width	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construc- tion	Standard	Utility	Economy	Lumber Percent	volume Board feet
Inches		Percent															
1	2	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	1/	3
	4	40.1	2.6	12.2	--	--	--	--	--	--	--	15.8	13.3	13.1	2.9	0.1	1,054
	6	60.0	.3	.8	--	--	--	--	--	--	--	22.3	6.1	10.0	.5	.2	1,768
	8	59.0	3.0	8.7	--	--	--	--	--	--	--	8.7	15.2	5.4	--	1/	369
	10	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	17
	12	63.2	--	--	--	--	--	--	--	--	--	--	--	--	36.8	1/	38
2	3	--	--	--	--	--	--	--	--	--	--	100.0	--	--	--	1/	10
	4	43.5	4.4	8.7	--	--	--	--	--	--	--	19.5	10.0	12.1	1.8	.3	3,131
	5	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	12
	6	53.8	1.9	3.6	--	--	--	0.9	0.7	--	--	18.5	9.9	7.8	2.9	.6	6,153
	7	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	14
	8	39.5	2.7	9.4	--	--	--	3.6	2.7	0.7	--	23.8	8.4	8.8	.4	.4	3,560
	9	46.2	--	--	--	--	--	--	--	--	--	53.8	--	--	--	1/	39
	10	60.4	3.7	5.5	--	--	--	1.7	2.4	--	--	13.3	2.9	8.4	1.7	.1	1,147
	12	61.5	4.6	--	--	--	--	.9	2.6	--	--	14.3	8.7	7.4	--	.2	1,840
	14	--	--	--	--	--	--	100.0	--	--	--	--	--	--	--	1/	33
3	4	20.9	--	--	--	18.7	--	20.9	12.5	27.0	--	--	--	--	--	1/	96
	5	29.8	--	--	40.4	--	--	--	29.8	--	--	--	--	--	--	1/	57
	6	21.8	.5	12.1	10.1	12.8	10.4	8.7	18.0	4.5	1.1	--	--	--	--	.4	4,503
	7	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/	24
	8	11.7	--	33.6	30.6	12.6	7.5	2.0	2.0	--	--	--	--	--	--	.2	2,024
	10	1.9	--	42.9	32.6	18.6	--	--	4.0	--	--	--	--	--	--	.2	1,610
	12	37.1	--	--	62.9	--	--	--	--	--	--	--	--	--	--	1/	210
	18	--	--	100.0	--	--	--	--	--	--	--	--	--	--	--	1/	54
4	4	21.4	1.2	16.0	22.1	11.7	12.0	3.1	7.5	2.7	2.3	--	--	--	--	.2	2,563
	5	31.5	--	13.8	4.4	15.7	6.2	8.1	12.7	7.6	--	--	--	--	--	1/	528
	6	13.9	1.3	10.5	13.3	12.7	13.6	8.0	22.1	4.5	.1	--	--	--	--	2.8	27,869
	7	--	--	23.9	16.9	42.3	--	--	16.9	--	--	--	--	--	--	1/	331
	8	7.2	.5	22.0	27.3	23.8	10.1	2.3	3.9	2.9	--	--	--	--	--	1.3	12,975
	9	--	--	--	33.3	37.9	15.2	--	--	13.6	--	--	--	--	--	1/	396
	10	3.6	--	37.3	24.6	21.3	9.9	1.5	1.8	--	--	--	--	--	--	.8	8,036
	11	--	--	45.3	--	--	--	--	--	54.7	--	--	--	--	--	1/	161
	12	14.4	--	18.3	33.6	27.9	4.6	1.2	--	--	--	--	--	--	--	.4	4,552
	13	29.2	--	24.4	46.4	--	--	--	--	--	--	--	--	--	--	1/	356
	14	6.0	--	27.1	47.3	19.6	--	--	--	--	--	--	--	--	--	.2	1,857
	16	14.8	--	40.6	32.0	12.6	--	--	--	--	--	--	--	--	--	.2	1,867
	18	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/	72
5	5	19.4	--	14.4	14.4	21.1	11.3	--	19.4	--	--	--	--	--	--	1/	257
	6	6.2	1.5	11.0	5.1	6.7	8.3	16.5	32.0	12.7	--	--	--	--	--	1.1	10,835
	7	--	--	35.3	26.3	9.2	19.2	--	--	10.0	--	--	--	--	--	.1	578
	8	6.9	1.1	28.0	25.8	15.2	14.0	4.1	3.8	1.4	--	--	--	--	--	.6	5,547
	9	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/	75
	10	1.6	--	39.2	25.8	25.2	5.2	--	1.8	1.2	--	--	--	--	--	.4	4,167
	11	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/	55
	12	--	--	17.4	54.0	28.6	--	--	--	--	--	--	--	--	--	.2	2,410
	14	--	--	32.4	35.1	12.5	20.0	--	--	--	--	--	--	--	--	.1	934
	16	--	--	29.7	45.6	11.9	--	--	12.8	--	--	--	--	--	--	.1	1,346
6	6	10.3	1.2	10.1	8.6	10.3	16.6	10.7	18.9	13.0	.3	--	--	--	--	10.9	109,704
	7	4.0	.3	7.0	7.8	10.7	16.0	15.2	26.1	12.9	--	--	--	--	--	2.9	29,324
	8	11.0	2.0	19.6	12.0	12.9	13.5	9.5	12.3	7.0	.2	--	--	--	--	26.5	264,324
	9	2.7	.6	11.3	8.8	6.9	14.9	11.0	29.7	13.9	.2	--	--	--	--	3.4	34,543
	10	10.3	1.6	22.6	12.6	14.9	12.6	8.4	11.1	5.6	.3	--	--	--	--	21.6	215,525
	11	6.3	--	6.8	5.1	5.6	8.6	16.5	38.8	11.9	.4	--	--	--	--	1.9	19,470
	12	17.4	2.3	16.6	12.1	12.0	6.6	13.7	13.6	5.5	.2	--	--	--	--	9.8	99,048
	13	3.9	--	7.7	10.3	12.3	15.6	7.0	31.1	12.1	--	--	--	--	--	1.0	9,582
	14	20.6	.1	11.4	15.6	13.7	6.8	14.4	12.2	5.2	--	--	--	--	--	4.5	45,367
	15	4.6	2.3	16.1	4.3	6.2	2.3	8.7	40.6	14.9	--	--	--	--	--	.8	7,740
	16	14.1	--	16.3	10.5	17.6	5.5	5.2	24.3	6.5	--	--	--	--	--	2.2	22,240
	17	9.4	--	13.5	6.3	2.4	2.9	2.9	48.9	13.7	--	--	--	--	--	.7	7,055
	18	15.2	.9	14.5	22.0	6.3	2.4	3.7	27.7	7.3	--	--	--	--	--	1.2	12,042
	19	--	--	30.3	22.0	--	--	9.2	33.0	5.5	--	--	--	--	--	.2	2,071
	20	26.7	--	43.4	19.2	--	6.8	--	--	4.1	--	--	--	--	--	.3	2,920
7	8	7.9	--	9.2	25.1	21.0	--	--	23.7	13.1	--	--	--	--	--	.1	708
	10	--	--	--	--	100.0	--	--	--	--	--	--	--	--	--	1/	240
8	8	--	--	--	29.7	44.8	--	--	25.5	--	--	--	--	--	--	1/	501
	9	--	--	--	50.0	50.0	--	--	--	--	--	--	--	--	--	1/	240
	10	--	--	51.9	12.5	--	--	--	17.8	17.8	--	--	--	--	--	.1	745
	12	--	--	--	--	--	100.0	--	--	--	--	--	--	--	--	1/	112
9	9	--	--	42.5	21.2	--	20.4	10.6	5.3	--	--	--	--	--	--	.2	1,780
	10	--	--	62.5	25.0	--	12.5	--	--	--	--	--	--	--	--	.1	840
10	10	--	--	65.4	19.2	7.7	7.7	--	--	--	--	--	--	--	--	.3	3,033
	12	--	--	62.8	37.2	--	--	--	--	--	--	--	--	--	--	.1	860
Board feet																	
Total		118,313	14,875	175,293	124,024	125,482	115,823	95,472	153,366	73,309	2,041	3,635	1,722	1,745	324	100.0	1,005,424

1/ Percentage is less than 0.05.

Table 19.—The distribution of study lumber by PLIB grade and length for Select logs

Board length (feet)	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy	Lumber volume	
															Percent	Board feet
----- <i>Percent</i> -----																
8	62.1	--	2.9	3.6	3.6	--	10.7	8.2	--	--	2.9	2.4	3.6	--	0.6	448
10	63.0	7.5	5.9	--	--	8.2	3.4	6.7	--	--	4.8	.5	--	--	1.4	970
12	47.9	3.5	5.3	1.2	2.8	4.7	14.7	12.2	6.3	--	.5	.4	.3	0.2	20.5	14,413
14	47.9	3.4	4.4	.8	.6	1.8	22.9	10.4	6.8	--	.4	.2	.4	--	17.4	12,328
16	55.5	1.4	1.4	--	--	--	15.5	16.0	5.9	--	--	1.0	3.0	.3	2.1	1,500
18	46.3	1.0	8.4	.3	--	4.1	14.9	17.4	7.6	--	--	--	--	--	14.6	10,350
20	38.7	4.3	7.1	.4	3.2	3.2	16.1	21.1	5.5	--	.2	.2	--	--	16.1	11,395
22	30.8	--	30.2	16.4	--	7.5	15.1	--	--	--	--	--	--	--	1.6	1,166
24	14.6	3.0	11.0	3.8	3.2	8.7	24.8	23.5	7.4	--	--	--	--	--	14.4	10,160
26	42.3	--	6.2	6.8	1.3	2.1	19.1	12.4	9.8	--	--	--	--	--	11.3	7,982
----- <i>Board feet</i> -----																
Total	28,920	1,910	4,049	1,491	1,289	2,917	12,855	10,957	4,787	--	205	138	157	37	100.0	70,712

Table 20.—The distribution of study lumber by PLIB grade and length for No. 1 logs

Board length (feet)	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy	Lumber volume	
															Percent	Board feet
----- Percent -----																
6	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	4
8	49.0	4.1	2.0	--	--	--	11.6	6.7	10.2	2.4	8.1	4.1	1.8	--	0.4	657
10	51.4	1.0	4.1	4.1	--	8.1	13.0	1.6	2.7	--	5.9	3.0	5.1	--	.8	1,227
11	100.0	--	--	--	--	--	--	--	--	--	--	--	--	1/	1/	6
12	33.7	4.1	4.8	3.4	2.8	7.9	16.6	16.5	8.7	1/	1.1	.2	.2	--	16.5	23,963
14	35.2	3.9	12.4	1.3	2.2	3.8	16.1	17.3	5.8	1.1	.4	.4	.1	--	15.3	22,152
16	43.2	.7	15.0	8.6	--	4.3	8.9	12.9	2.1	--	1.1	1.4	1.8	--	1.5	2,236
18	25.2	3.9	11.9	6.2	2.8	6.8	16.2	19.0	6.4	.8	.6	.2	1/	--	14.6	21,096
20	14.8	3.7	19.6	6.1	5.8	6.6	16.9	17.5	8.3	.3	.1	.2	.1	--	33.7	48,895
22	21.7	--	34.1	3.2	--	3.2	6.3	25.0	4.8	--	1.2	--	.5	--	1.9	2,773
24	20.0	4.6	16.2	7.7	7.6	4.5	8.7	26.7	3.9	--	--	.1	--	--	8.6	12,586
26	19.2	--	7.0	5.4	3.0	5.7	20.3	27.2	12.2	--	--	--	--	--	6.6	9,620
28	--	--	--	--	--	100.0	--	--	--	--	--	--	--	--	.1	140
----- Board feet -----																
Total	35,272	5,127	20,038	7,224	5,859	8,927	22,862	27,372	10,724	578	734	363	267	8	100.0	145,355

1/ Percentage is less than 0.05.

Table 21.—The distribution of study lumber by PLIB grade and length for No. 2 logs

Board length (feet)	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy	Lumber volume	
															Percent	Board feet
----- Percent -----																
6	50.0	---	---	---	---	---	---	---	50.0	---	---	---	---	---	1/	18
8	40.0	0.6	2.2	9.1	3.3	6.5	6.2	8.6	4.2	---	7.7	7.1	3.9	0.6	0.2	1,344
10	31.0	.3	11.5	5.2	5.4	15.9	9.1	5.5	7.5	---	5.6	2.3	.5	.2	.6	3,444
11	100.0	---	---	---	---	---	---	---	---	---	---	---	---	---	1/	44
12	19.1	2.1	12.8	9.0	9.1	10.5	11.7	13.0	11.2	0.1	.6	.3	.4	.1	11.1	62,670
13	100.0	---	---	---	---	---	---	---	---	---	---	---	---	---	1/	52
14	14.6	1.7	14.2	9.0	10.4	12.7	10.3	15.4	9.7	.6	.6	.2	.5	.1	8.4	47,172
16	13.8	2.8	21.2	15.6	13.2	12.9	5.4	7.2	3.3	---	2.0	8.0	1.6	.2	1.6	9,266
18	8.9	2.2	22.2	13.8	10.7	12.7	7.9	13.5	7.2	.4	.3	.1	.1	1/	12.5	70,470
19	61.1	---	38.9	---	---	---	---	---	---	---	---	---	---	---	.1	342
20	5.8	1.0	22.4	12.9	13.5	9.6	8.9	18.9	6.7	.1	.1	.1	1/	---	32.9	185,905
21	---	---	---	---	---	---	100.0	---	---	---	---	---	---	---	1/	63
22	5.7	---	33.6	13.3	14.7	9.1	8.5	10.4	4.3	---	---	.3	.1	---	2.5	14,232
24	5.3	1.0	28.0	14.4	10.6	8.3	8.1	18.0	6.0	.1	.2	1/	1/	---	23.7	133,822
26	8.4	.6	13.8	8.6	11.7	9.8	14.8	22.8	9.5	---	---	---	---	---	6.3	35,492
32	---	---	---	100.0	---	---	---	---	---	---	---	---	---	---	.1	320
----- Board feet -----																
Total	50,066	7,189	122,212	69,479	64,510	57,061	52,778	95,125	41,781	857	1,810	741	885	162	100.0	564,656

1/ Percentage is less than 0.05.

Table 22.—The distribution of study lumber by PLIB grade and length for No. 3 logs

Board length (feet)	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy	Lumber volume	
															Percent	Board feet
----- Percent -----																
8	17.8	0.6	11.3	7.7	11.5	21.5	--	4.6	7.7	--	7.1	2.1	5.6	2.5	0.2	521
10	13.9	--	3.9	8.8	27.0	30.8	--	2.7	--	--	5.5	1.8	3.6	2.0	.6	1,465
11	--	--	--	--	--	--	--	--	--	--	100.0	--	--	--	1/	4
12	4.7	.6	10.2	17.7	20.2	24.4	3.1	6.0	11.5	0.3	.4	.5	.3	.1	11.3	25,426
14	3.5	.6	10.6	20.8	25.1	22.8	3.6	7.1	4.4	--	.7	.5	.3	--	9.3	20,745
16	2.9	.2	5.6	25.9	30.9	17.0	1.7	--	11.6	--	1.1	1.8	.9	.4	2.5	5,520
18	1.3	.4	15.8	18.9	22.8	20.5	4.5	9.4	4.9	.5	.6	.1	.2	.1	14.6	32,863
19	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	76
20	.8	.2	12.4	20.2	26.2	20.1	3.4	9.3	6.6	.5	.2	.1	1/	1/	31.6	70,915
22	1.1	1.2	11.5	20.4	23.9	26.0	2.0	6.8	6.8	--	.3	--	--	--	3.4	7,583
24	.8	--	13.6	23.9	23.1	18.9	1.5	9.9	8.2	--	.1	--	1/	--	20.0	44,916
26	1.4	--	13.6	15.9	18.3	22.4	4.5	15.9	7.6	--	--	--	.4	--	6.5	14,667
----- Board feet -----																
Total	4,044	649	27,994	45,830	53,824	46,918	6,977	19,912	16,017	606	886	480	442	117	100.0	224,701

1/ Percentage is less than 0.05.

Table 23.—The distribution of study lumber by PLIB grade and length for all logs

Board length (feet)	No. 2 Clear	No. 3 Clear	Select Merchant- able	No. 1 Merchant- able	No. 2 Merchant- able	No. 3 Common	Factory Select	No. 1 Shop	No. 2 Shop	No. 3 Shop	Construction	Standard	Utility	Economy	Lumber volume	
															Percent	Board feet
----- Percent -----																
6	59.1	--	--	--	--	--	--	--	40.9	--	--	--	--	--	1/	22
8	41.5	1.3	3.8	6.0	4.0	6.7	7.0	7.5	5.5	0.5	6.9	4.9	3.7	0.7	0.3	2,970
10	35.6	1.2	7.9	5.0	8.1	16.6	7.1	4.4	4.1	--	5.5	2.1	1.9	.5	.7	7,106
11	92.6	--	--	--	--	--	--	--	--	--	7.4	--	--	--	1/	54
12	22.3	2.3	9.9	8.8	9.4	12.1	11.3	12.1	10.3	.1	8.7	.3	.3	.1	12.6	126,472
13	100.0	--	--	--	--	--	--	--	--	--	--	--	--	--	1/	52
14	20.9	2.2	11.9	8.7	10.4	11.5	11.7	13.5	7.4	.5	.6	.3	.4	1/	10.2	102,397
16	17.6	1.6	14.3	16.6	15.8	12.0	5.6	6.4	5.8	--	1.5	1.1	1.5	.2	1.8	18,527
18	12.5	1.9	18.1	12.8	11.6	13.0	8.9	13.8	6.4	.4	.4	.1	.1	1/	13.4	134,779
19	68.2	--	31.8	--	--	--	--	--	--	--	--	--	--	--	1/	418
20	7.3	1.3	19.3	13.0	14.8	11.1	9.2	16.7	6.9	.2	.1	.1	1/	1/	31.6	316,879
21	--	--	--	--	--	--	100.0	--	--	--	--	--	--	--	1/	63
22	7.2	.3	27.0	14.4	15.2	13.4	6.7	10.4	4.9	--	.2	.2	.1	--	2.6	25,754
24	5.7	1.1	23.3	15.5	12.8	10.4	7.5	17.1	6.4	--	.2	--	--	--	20.1	201,484
26	12.4	.3	11.9	9.5	10.7	11.0	13.9	20.8	9.5	--	--	--	--	--	6.7	67,785
28	--	--	--	--	--	100.0	--	--	--	--	--	--	--	--	1/	140
32	--	--	--	100.0	--	--	--	--	--	--	--	--	--	--	1/	320
----- Board feet -----																
Total	118,313	14,875	175,293	124,024	125,482	115,823	95,472	153,366	73,309	2,041	3,635	1,722	1,745	324	100.0	1,005,424

1/ Percentage is less than 0.05.

APPENDIX II

TABULAR LUMBER YIELD DATA

by

Export Grades

Table 24.—Summary of log scale, Export lumber tally, and cubic volumes by diameter classes—Select logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		Export lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
----- Board feet ----- Percent ----- Cubic feet ----- Percent ----- Cubic feet -----										
30	2	3,040	2,860	3,749	131	472.23	332.77	70	24.22	115.24
31	--	--	--	--	--	--	--	--	--	--
32	2	3,220	2,800	4,400	152	593.07	392.10	66	30.44	170.53
33	1	2,490	2,280	3,110	136	367.30	278.41	76	21.29	67.60
34	1	1,700	1,400	1,877	134	291.20	170.05	58	16.28	104.87
35	4	7,660	6,590	8,381	127	1,393.23	748.53	54	59.63	585.07
36	--	--	--	--	--	--	--	--	--	--
37	--	--	--	--	--	--	--	--	--	--
38	1	2,000	1,730	2,652	153	290.94	235.90	81	18.54	36.50
39	--	--	--	--	--	--	--	--	--	--
40	2	3,770	3,140	3,864	123	805.65	344.39	43	25.90	435.36
41	2	4,450	3,810	4,730	124	1,021.36	421.27	41	32.68	567.41
42	2	5,040	3,800	4,524	119	734.09	405.50	55	31.03	297.56
43	--	--	--	--	--	--	--	--	--	--
44	--	--	--	--	--	--	--	--	--	--
45	2	4,940	4,400	5,612	128	813.27	498.95	61	38.23	276.09
46	1	2,970	2,660	3,218	121	619.73	287.64	46	23.18	308.91
47	1	2,480	2,090	2,758	132	480.03	244.72	51	17.94	217.37
48	1	2,600	2,380	2,796	117	361.68	249.51	69	18.20	93.97
49	2	5,840	5,610	5,710	102	1,036.98	508.27	49	38.42	490.29
50	--	--	--	--	--	--	--	--	--	--
51	1	3,650	2,660	3,607	136	695.26	320.71	46	23.45	351.10
52	--	--	--	--	--	--	--	--	--	--
53	2	6,840	6,060	7,353	121	989.14	652.99	66	57.77	288.38
54	--	--	--	--	--	--	--	--	--	--
55	1	3,400	3,040	3,582	118	599.46	316.88	53	22.47	260.11
Total	28	66,090	57,410	71,923	125	11,564.62	6,408.59	55	489.67	4,666.36

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} Export lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 25.—Summary of log scale, Export lumber tally, and cubic volumes by diameter classes—No. 1 logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		Export lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
----- Board feet ----- Percent ----- Cubic feet ----- Percent ----- Cubic feet -----										
24	1	860	800	998	125	141.00	88.54	63	6.41	46.05
25	3	3,730	3,670	4,593	125	698.56	408.21	58	29.48	260.87
26	3	4,290	3,700	4,475	121	803.13	400.70	50	31.88	370.55
27	7	9,520	8,850	10,845	123	1,628.04	967.77	59	68.51	591.76
28	7	10,760	10,050	10,872	108	2,019.03	972.50	48	78.41	968.12
29	6	8,430	7,800	9,242	118	1,621.17	830.13	51	61.76	729.28
30	8	12,570	11,300	13,504	120	2,186.19	1,204.66	55	90.25	891.28
31	5	7,820	6,790	8,094	119	1,514.21	721.74	48	55.07	737.40
32	1	1,560	1,420	930	91	507.81	82.71	16	6.17	418.93
33	4	6,670	5,450	8,212	151	1,218.02	728.61	60	52.12	437.29
34	2	3,300	3,860	3,996	140	505.01	353.86	70	25.46	125.69
35	1	1,750	1,600	1,951	122	334.46	175.42	52	13.56	145.48
36	--	--	--	--	--	--	--	--	--	--
37	1	1,670	1,300	1,993	153	223.35	177.62	80	14.04	31.69
38	2	4,920	3,900	4,966	127	661.78	441.71	67	33.29	186.78
39	1	3,690	3,610	3,555	98	895.34	314.98	35	22.43	557.88
40	2	4,810	3,940	3,527	90	732.97	315.33	43	25.02	392.62
41	2	6,670	6,060	7,477	123	1,248.85	662.44	53	47.54	538.87
42	3	6,880	5,960	8,273	139	1,083.75	734.53	68	55.19	294.03
43	--	--	--	--	--	--	--	--	--	--
44	1	2,590	2,350	3,442	146	560.51	305.18	54	22.54	232.79
45	1	2,860	2,350	3,383	144	398.41	300.26	75	22.06	76.09
46	1	2,580	2,180	2,709	124	331.14	240.44	73	18.52	72.18
47	1	3,520	2,660	3,474	131	493.09	311.95	63	26.65	154.49
48	1	2,600	1,940	3,037	157	334.10	268.99	81	18.66	46.45
49	2	6,290	5,250	7,214	137	1,325.09	638.73	48	46.01	640.35
50	1	3,040	2,600	2,740	105	520.42	243.24	47	17.13	260.05
51	--	--	--	--	--	--	--	--	--	--
52	1	3,800	3,510	4,189	119	677.89	371.81	55	27.83	278.25
53	2	7,630	3,710	2,339	63	1,207.08	209.19	17	17.45	980.44
54	--	--	--	--	--	--	--	--	--	--
55	1	3,970	3,290	3,977	121	523.26	354.60	68	27.71	140.95
56	1	3,820	3,160	3,436	109	720.26	307.10	43	24.04	389.12
Total	72	142,600	122,060	147,443	121	25,113.92	13,132.95	52	985.24	10,995.73

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} Export lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 26.—Summary of log scale, Export lumber tally, and cubic volumes by diameter classes—No. 2 logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		Export lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue ^{4/}
		----- Board feet -----		Percent		----- Cubic feet -----		Percent	----- Cubic feet -----	
14	17	5,100	4,960	7,436	150	1,100.15	660.61	60	45.73	393.81
15	25	9,610	9,380	12,665	135	2,069.12	1,122.85	54	78.95	867.32
16	27	11,490	11,130	16,403	147	2,447.93	1,449.86	59	98.89	899.18
17	19	9,280	8,950	11,672	130	1,840.48	1,038.06	56	72.61	729.81
18	37	21,370	20,490	28,769	140	4,339.71	2,538.67	58	166.66	1,634.38
19	24	17,160	16,290	23,050	141	3,170.13	2,034.84	64	134.91	1,000.38
20	20	16,080	15,480	21,068	136	2,822.80	1,857.55	66	122.55	842.70
21	30	25,520	24,710	31,691	128	4,582.35	2,805.64	61	192.81	1,583.90
22	25	21,880	20,690	30,483	147	4,108.03	2,699.10	66	185.41	1,223.52
23	24	21,160	19,800	26,294	133	3,605.92	2,327.38	65	159.25	1,119.29
24	21	23,940	23,060	30,075	130	4,189.01	2,671.14	64	189.78	1,328.09
25	20	24,420	23,530	30,844	131	4,293.02	2,732.82	64	189.47	1,370.73
26	12	14,450	13,110	16,189	123	2,681.09	1,436.76	54	104.61	1,139.72
27	10	13,430	12,440	15,378	124	2,106.24	1,360.76	65	94.35	651.13
28	11	17,440	16,600	20,207	122	2,093.82	1,785.62	58	124.85	1,183.35
29	15	20,670	18,390	25,173	137	3,337.57	2,233.28	67	158.38	945.91
30	12	18,410	15,550	23,802	153	3,499.95	2,114.45	59	150.38	1,335.11
31	7	11,290	9,810	12,483	127	1,976.97	1,112.60	56	84.32	780.05
32	6	9,380	8,730	11,840	136	1,720.77	1,050.18	61	75.97	594.62
33	7	14,240	11,630	15,273	131	2,442.13	1,347.78	55	99.01	995.34
34	8	14,750	13,520	18,944	140	2,319.18	1,677.21	72	118.15	523.82
35	5	10,570	9,570	13,153	137	1,854.07	1,167.92	63	88.37	597.78
36	2	3,810	3,040	4,407	145	604.98	391.38	65	28.07	185.53
37	4	9,280	7,890	10,774	137	1,477.86	957.51	65	71.38	448.97
38	8	17,540	14,170	19,855	140	2,857.70	1,759.89	62	126.50	971.31
39	5	12,450	10,830	13,130	121	2,276.83	1,165.91	51	86.30	1,024.62
40	6	15,480	11,410	15,673	137	2,544.56	1,388.62	55	99.29	1,056.65
41	1	2,540	1,680	2,561	152	343.02	226.84	66	15.43	100.75
42	5	15,150	11,090	14,045	127	2,059.25	1,249.99	61	93.71	715.55
43	3	7,840	6,180	7,347	119	1,033.15	654.09	63	45.26	333.80
44	5	16,720	14,430	17,611	122	3,045.13	1,563.58	51	114.16	1,367.39
45	2	5,330	3,420	4,687	137	695.60	415.11	60	29.74	250.75
46	5	15,070	9,360	12,451	133	2,056.99	1,115.71	54	83.68	857.60
47	1	2,690	2,280	3,072	135	353.77	271.36	77	19.26	63.15
48	1	2,600	2,380	2,962	124	480.15	263.24	55	19.53	197.38
49	1	3,140	2,020	2,524	125	421.55	225.25	53	18.51	177.79
50	--	--	--	--	--	--	--	--	--	--
51	2	7,060	5,440	6,095	112	1,187.41	541.99	46	40.44	604.98
52	1	3,290	2,690	3,492	130	429.61	308.27	72	22.49	98.85
53	--	--	--	--	--	--	--	--	--	--
54	1	3,280	1,320	2,006	152	494.48	176.90	36	13.30	304.28
55	--	--	--	--	--	--	--	--	--	--
56	1	3,530	2,810	3,189	113	496.42	283.55	57	21.43	191.44
Total	436	498,840	440,260	588,733	134	86,558.90	52,184.28	60	3,683.89	3,069.73

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} Export lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 27.—Summary of log scale, Export lumber tally, and cubic volumes by diameter classes—No. 3 logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		Export lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
-----Board feet----- Percent ----- Cubic feet----- Percent -----Cubic feet-----										
6	12	870	870	1,490	171	246.53	133.81	54	10.67	102.05
7	28	1,960	1,930	3,247	168	578.21	291.61	50	24.11	262.49
8	35	3,300	3,170	5,089	161	1,015.84	455.06	45	36.65	524.13
9	40	4,180	3,950	6,800	172	1,186.06	607.74	51	46.95	531.37
10	34	5,600	5,330	8,315	156	1,327.84	739.90	56	54.82	533.12
11	39	6,390	6,200	9,084	147	1,557.81	808.22	52	59.63	689.96
12	54	12,440	12,000	19,505	163	2,980.51	1,729.62	58	119.95	1,130.94
13	52	14,290	13,580	21,064	155	3,310.89	1,870.16	56	131.53	1,309.20
14	24	6,390	5,950	10,411	175	1,470.05	924.39	63	64.24	481.42
15	21	7,230	6,320	9,551	151	1,493.12	847.73	57	58.99	586.40
16	14	5,890	5,080	7,750	153	1,196.71	686.88	57	46.06	463.77
17	13	5,600	4,830	7,707	160	1,091.97	683.19	63	48.19	360.59
18	14	6,430	5,550	9,296	167	1,199.86	824.75	69	56.17	318.94
19	10	4,800	4,080	6,238	153	882.76	553.92	63	38.45	290.39
20	7	3,180	2,040	3,692	181	563.88	329.82	58	24.78	209.28
21	8	6,640	5,750	8,641	150	1,145.02	764.48	67	52.53	328.01
22	7	6,050	4,980	7,779	156	1,029.18	690.65	67	48.56	289.97
23	8	8,500	6,670	10,322	155	1,363.26	919.77	67	67.14	376.35
24	5	6,020	4,980	7,018	141	957.92	624.67	65	44.15	289.10
25	11	10,210	7,810	12,587	161	1,628.66	1,117.62	69	78.61	432.43
26	6	5,570	4,250	6,221	146	852.39	551.76	65	39.98	260.65
27	4	3,980	2,410	4,981	207	625.49	440.87	70	30.55	154.07
28	5	5,830	4,390	9,096	207	893.98	804.73	90	54.71	34.54
29	1	2,010	1,790	1,851	103	300.50	164.03	55	12.36	124.11
30	2	2,950	2,380	3,575	150	495.64	318.14	64	22.72	154.78
31	3	6,160	5,280	6,605	125	998.64	590.13	59	40.67	367.84
32	1	2,430	1,840	2,677	145	347.62	240.51	69	18.39	88.72
33	2	3,230	1,560	1,949	125	440.68	172.84	39	12.44	255.40
34	2	3,200	2,900	4,490	152	504.06	391.16	78	28.38	84.52
35	--	--	--	--	--	--	--	--	--	--
36	1	1,500	580	1,272	219	224.43	112.70	50	7.78	103.95
37	2	4,120	2,490	5,466	220	596.62	485.29	81	35.39	75.94
38	1	2,140	1,930	2,540	132	324.17	226.25	70	16.63	81.29
39	1	2,240	1,230	2,844	231	366.63	252.33	69	18.32	95.98
40	1	1,660	830	1,492	180	227.54	133.03	58	10.73	83.78
41	--	--	--	--	--	--	--	--	--	--
42	--	--	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--	--	--
44	1	2,410	930	1,824	196	302.72	162.01	54	11.93	128.78
45	--	--	--	--	--	--	--	--	--	--
46	--	--	--	--	--	--	--	--	--	--
47	--	--	--	--	--	--	--	--	--	--
48	1	2,810	2,180	2,683	123	578.50	237.82	41	17.49	323.19
49	2	6,070	5,060	7,378	146	872.42	654.99	75	46.43	171.00
50	--	--	--	--	--	--	--	--	--	--
51	--	--	--	--	--	--	--	--	--	--
52	--	--	--	--	--	--	--	--	--	--
53	--	--	--	--	--	--	--	--	--	--
54	1	3,280	1,380	574	42	425.69	53.14	12	4.70	367.85
Total	473	187,560	154,480	243,023	157	35,603.80	21,595.72	61	1,541.78	12,466.30

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} Export lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 28.—Summary of log scale, Export lumber tally, and cubic volumes by diameter classes—all logs

Log scaling diameter (inches)	Number of logs	Log scale ^{1/}		Export lumber tally		Cubic volume				
		Gross	Net	Volume	Recovery ratio ^{2/}	Log	Lumber	Lumber recovery ratio ^{3/}	Sawdust	Chippable residue
----- Board feet ----- Percent ----- Cubic feet ----- Percent ----- Cubic feet -----										
6	12	870	870	1,499	171	246.53	133.81	54	10.67	102.05
7	28	1,960	1,930	3,247	168	578.21	291.61	50	24.11	262.49
8	35	3,300	3,170	5,089	161	1,015.84	455.06	45	36.65	524.13
9	40	4,180	3,950	6,800	172	1,186.05	607.74	51	46.95	531.37
10	34	5,600	5,330	8,315	156	1,327.84	739.90	56	54.32	533.12
11	39	6,390	6,200	9,084	147	1,557.81	808.22	52	59.63	689.96
12	54	12,440	12,000	19,505	163	2,980.51	1,729.62	58	119.95	1,130.94
13	52	14,290	13,580	21,064	155	3,310.89	1,870.16	56	131.53	1,309.20
14	41	11,490	10,910	17,847	164	2,570.20	1,585.00	62	109.97	875.23
15	46	16,840	15,700	22,216	142	3,562.24	1,970.58	55	137.94	1,453.72
16	41	17,380	16,210	24,153	149	3,644.64	2,136.74	59	144.95	1,362.95
17	32	14,880	13,780	19,379	141	2,932.45	1,721.25	59	120.80	1,090.40
18	51	27,800	26,040	38,065	146	5,539.57	3,363.42	61	222.83	1,953.32
19	34	21,960	20,370	29,288	144	4,052.89	2,588.76	64	173.36	1,290.77
20	27	19,260	17,520	24,760	141	3,386.68	2,187.37	65	147.33	1,051.98
21	38	32,160	30,460	40,332	132	5,727.37	3,570.12	62	245.34	1,911.91
22	32	27,930	25,670	38,262	149	5,137.21	3,389.75	66	233.97	1,513.49
23	32	29,660	26,470	36,616	138	4,969.18	3,247.15	65	226.39	1,495.64
24	27	30,820	28,840	38,091	133	5,287.93	3,384.35	64	240.34	1,663.24
25	34	38,360	35,010	48,024	137	6,620.24	4,258.65	64	297.56	2,064.03
26	21	24,310	21,060	26,885	128	4,336.61	2,389.22	55	176.47	1,770.92
27	21	26,930	23,700	31,204	132	4,359.77	2,769.40	64	193.41	1,396.96
28	23	34,030	31,040	40,175	129	6,006.83	3,562.85	59	257.97	2,186.01
29	22	31,110	27,980	36,266	130	5,259.24	3,227.44	61	232.50	1,799.30
30	24	36,970	32,000	44,630	139	6,754.01	3,970.03	59	287.57	2,496.41
31	15	25,270	21,880	27,182	124	4,489.82	2,424.47	54	180.06	1,885.29
32	10	16,590	14,890	19,847	133	3,169.27	1,765.50	56	130.97	1,272.80
33	14	26,630	20,920	28,544	136	4,468.13	2,527.64	57	184.86	1,755.63
34	13	22,950	20,680	29,226	141	3,619.45	2,592.28	72	188.27	838.90
35	10	19,980	17,760	23,485	89	3,581.76	2,091.87	58	161.56	1,328.33
36	3	5,310	3,620	5,679	68	829.41	504.08	61	35.85	289.48
37	7	15,070	11,680	18,233	156	2,297.83	1,620.42	71	120.81	556.60
38	12	26,600	21,730	30,013	138	4,134.59	2,663.75	64	194.96	1,275.88
39	7	18,380	15,670	19,529	125	3,538.80	1,733.22	49	127.10	1,678.48
40	11	25,720	19,320	24,556	127	4,310.72	2,181.37	51	160.94	1,968.41
41	5	13,660	11,550	14,768	128	2,631.23	1,310.55	50	95.65	1,207.03
42	10	27,070	20,850	26,842	129	3,877.09	2,390.02	62	179.93	1,307.14
43	3	7,840	6,180	7,347	119	1,033.15	654.09	63	45.26	333.80
44	7	21,720	17,710	22,877	129	3,908.36	2,030.77	52	148.63	1,728.96
45	5	13,130	10,170	13,682	135	1,907.28	1,214.32	64	90.03	602.93
46	7	20,620	14,200	18,378	129	3,007.86	1,643.79	55	125.38	1,238.69
47	3	8,690	7,030	9,304	132	1,326.89	828.03	62	63.85	435.01
48	4	10,610	8,880	11,478	129	1,754.43	1,019.56	58	73.88	660.99
49	7	21,340	17,940	22,826	127	3,656.04	2,027.24	55	149.37	1,479.43
50	1	3,040	2,600	2,740	105	520.42	243.24	47	17.13	260.05
51	3	10,710	8,100	9,702	120	1,882.67	862.70	46	63.89	956.08
52	2	7,090	6,200	7,681	124	1,107.50	680.08	61	50.32	377.10
53	4	14,470	9,770	9,692	99	2,196.22	862.18	39	65.22	1,268.82
54	2	6,560	2,700	2,580	96	920.17	230.04	25	18.00	672.13
55	2	7,370	6,330	7,559	119	1,122.72	671.48	60	50.18	401.06
56	2	7,350	5,970	6,625	111	1,216.68	590.65	49	45.47	580.56
Total	1,009	894,690	774,210	1,051,162	136	158,841.24	93,321.54	59	6,700.58	58,819.12

^{1/} As scaled by the Puget Sound Log Scaling and Grading Bureau in log rafts, Scribner log rule.^{2/} Export lumber tally volume as percentage of net scale volume.^{3/} Lumber cubic volume as percentage of log cubic volume.

Table 29.—Export lumber grade yields for Select logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}
<i>Board feet</i> - - - - - <i>Percent</i> - - - - -								
30	2	3,749	39.37	28.06	31.10	0.91	--	0.56
31	--	--	--	--	--	--	--	--
32	2	4,400	35.50	31.02	30.03	2.30	0.50	.66
33	1	3,110	12.35	40.77	41.70	3.38	1.80	--
34	1	1,877	29.62	23.81	39.96	5.70	--	.91
35	4	8,381	41.89	27.62	25.21	3.94	1.05	.29
36	--	--	--	--	--	--	--	--
37	--	--	--	--	--	--	--	--
38	1	2,652	53.02	17.87	24.17	2.26	2.68	--
39	--	--	--	--	--	--	--	--
40	2	3,864	24.84	34.03	36.77	4.35	--	--
41	2	4,730	42.37	29.45	23.45	3.68	1.06	--
42	2	4,524	28.91	28.45	36.47	5.75	.42	--
43	--	--	--	--	--	--	--	--
44	--	--	--	--	--	--	--	--
45	2	5,612	55.81	14.52	25.78	2.39	1.50	--
46	1	3,218	12.49	52.64	27.91	6.15	.81	--
47	1	2,758	35.68	38.29	21.75	3.01	1.27	--
48	1	2,796	1.72	57.08	38.34	2.15	.72	--
49	2	5,710	25.18	40.82	28.77	3.54	1.68	--
50	--	--	--	--	--	--	--	--
51	1	3,607	27.17	53.59	11.75	5.21	2.27	--
52	--	--	--	--	--	--	--	--
53	2	7,353	22.30	53.38	18.39	4.37	1.56	--
54	--	--	--	--	--	--	--	--
55	1	3,582	48.52	24.73	23.45	2.57	.73	--
Total	28	71,923	32.71	34.97	27.45	3.64	1.10	.13

^{1/} Local use lumber graded by WCLIB rules.

Table 30.—Export lumber grade yields for No. 1 logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}
<i>Board feet</i>			<i>Percent</i>					
24	1	998	8.02	38.78	53.20	--	--	--
25	3	4,593	9.06	38.43	51.44	1.07	--	--
26	3	4,475	7.24	35.51	51.88	3.28	1.74	0.34
27	7	10,845	1.48	52.77	44.51	1.01	.07	.16
28	7	10,872	14.06	31.91	50.29	2.38	.82	.54
29	6	9,242	9.24	44.85	43.94	1.66	.16	.15
30	8	13,504	7.41	48.50	41.04	1.99	.67	.38
31	5	8,094	7.49	50.38	39.57	1.28	.69	.58
32	1	930	--	36.88	57.31	1.94	3.87	--
33	4	8,212	17.34	42.62	39.82	--	.22	--
34	2	3,996	29.20	32.38	35.29	2.93	.20	--
35	1	1,951	23.99	38.49	32.40	5.13	--	--
36	--	--	--	--	--	--	--	--
37	1	1,993	60.21	5.72	30.41	--	3.66	--
38	2	4,966	19.61	27.33	52.34	--	.72	--
39	1	3,555	13.16	60.37	23.94	1.86	.68	--
40	2	3,527	35.38	21.55	36.83	4.56	1.67	--
41	2	7,477	22.55	45.61	29.25	1.71	.88	--
42	3	8,273	40.66	31.90	22.66	2.89	1.89	--
43	--	--	--	--	--	--	--	--
44	1	3,442	26.84	57.35	12.38	2.70	.73	--
45	1	3,383	41.44	27.11	27.73	1.18	2.54	--
46	1	2,709	41.27	27.32	27.57	--	3.84	--
47	1	3,474	35.18	40.18	14.99	6.62	2.53	.49
48	1	3,037	15.01	56.40	28.58	--	--	--
49	2	7,214	29.75	50.15	17.88	.96	1.26	--
50	1	2,740	13.14	45.88	36.53	4.45	--	--
51	--	--	--	--	--	--	--	--
52	1	4,189	19.43	48.34	29.86	2.03	.33	--
53	2	2,339	7.27	27.92	57.16	6.07	1.58	--
54	--	--	--	--	--	--	--	--
55	1	3,977	55.37	23.01	13.86	7.77	--	--
56	1	3,436	9.02	63.42	18.83	5.36	3.20	.17
Total	72	147,443	19.05	41.65	36.05	2.17	.93	.15

^{1/} Local use lumber graded by WCLIB rules.

Table 31.—Export lumber grade yields for No. 2 logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}
<i>Board feet</i>			<i>Percent</i>					
14	17	7,436	--	45.71	53.04	0.83	--	0.42
15	25	12,665	0.63	45.66	52.67	.40	0.39	.24
16	27	16,403	--	43.84	55.59	--	.37	.20
17	19	11,672	--	34.89	63.26	1.23	.54	.09
18	37	28,769	--	53.30	46.11	.46	.08	.06
19	24	23,050	--	49.52	50.21	.16	.08	.02
20	20	21,068	.13	53.48	46.05	.06	.27	--
21	30	31,691	.81	44.81	53.77	.45	.05	.11
22	25	30,483	1.73	53.17	44.35	.43	.30	.01
23	24	26,294	.99	55.42	43.09	.19	.21	.10
24	21	30,075	3.80	49.38	45.55	.42	.77	.08
25	20	30,844	2.85	56.45	39.91	.45	.26	.08
26	12	16,189	9.72	53.33	36.13	.64	--	.19
27	10	15,378	5.85	58.75	35.40	--	--	--
28	11	20,207	5.15	56.85	37.79	.22	--	--
29	15	25,173	5.03	58.32	35.30	.94	.39	.03
30	12	23,802	6.94	63.13	28.89	.25	.79	--
31	7	12,483	8.03	38.56	51.78	1.33	--	.30
32	6	11,840	11.96	44.92	41.93	.20	.88	.11
33	7	15,273	9.68	51.39	37.15	.74	.69	.35
34	8	18,944	11.77	57.28	29.52	.44	.98	--
35	5	13,153	23.93	45.43	28.41	1.78	.46	--
36	2	4,407	2.90	30.34	66.21	--	.54	--
37	4	10,774	19.55	55.89	21.72	1.62	1.21	--
38	8	19,855	18.67	52.89	26.94	.55	.95	--
39	5	13,130	25.18	46.44	26.45	1.30	.62	--
40	6	15,673	19.96	51.03	27.07	1.15	.80	--
41	1	2,561	--	52.75	47.25	--	--	--
42	5	14,045	19.37	37.76	40.80	1.01	1.06	--
43	3	7,347	6.56	49.63	41.55	1.10	1.16	--
44	5	17,611	12.89	55.70	27.96	2.36	1.08	--
45	2	4,687	29.70	39.85	29.08	.77	.60	--
46	5	12,451	18.91	34.71	43.08	2.29	.96	.05
47	1	3,072	8.46	57.13	32.49	1.53	.39	--
48	1	2,962	62.80	16.61	12.90	3.07	4.63	--
49	1	2,524	3.88	10.78	80.95	3.92	.48	--
50	--	--	--	--	--	--	--	--
51	2	6,095	9.09	42.51	45.48	2.07	.72	.13
52	1	3,492	22.97	57.07	18.04	.54	1.37	--
53	--	--	--	--	--	--	--	--
54	1	2,006	17.05	21.54	61.42	--	--	--
55	--	--	--	--	--	--	--	--
56	1	3,189	1.88	45.25	48.61	4.26	--	--
Total	436	588,773	7.55	50.38	40.80	.71	.49	.07

^{1/} Local use lumber graded by WCLIB rules.

Table 32.—Export lumber grade yields for No. 3 logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}
<i>Board feet</i>			<i>Percent</i>					
6	12	1,490	--	--	99.53	0.47	--	--
7	28	3,247	--	11.24	87.68	.40	0.68	--
8	35	5,089	--	6.33	92.67	.83	--	0.18
9	40	6,800	--	5.20	93.90	.39	.19	.34
10	34	8,315	--	16.57	82.08	.71	.34	.30
11	39	9,084	--	20.50	78.97	.54	--	--
12	54	19,505	--	32.37	67.33	.26	.04	--
13	52	21,064	--	29.25	69.70	.67	.28	.10
14	24	10,411	--	20.65	78.99	--	.07	.29
15	21	9,551	--	22.45	76.06	.76	.55	.17
16	14	7,750	--	24.39	75.43	--	.09	.09
17	13	7,707	--	23.03	76.28	--	.38	.31
18	14	9,296	--	27.31	72.22	.08	.39	--
19	10	6,238	1.15	26.45	71.66	.51	.10	.13
20	7	3,692	--	7.04	92.04	.27	.57	.08
21	8	8,641	--	49.97	49.90	.13	--	--
22	7	7,779	3.19	32.29	63.66	.55	.10	.21
23	8	10,322	2.02	18.89	77.26	1.00	.83	--
24	5	7,018	--	33.41	65.26	1.03	.23	.07
25	11	12,587	--	34.76	63.60	1.03	.24	.37
26	6	6,221	1.67	41.81	55.60	.63	--	.29
27	4	4,981	1.93	52.50	45.57	--	--	--
28	5	9,096	--	71.32	28.41	--	.24	.03
29	1	1,851	--	48.35	50.68	.97	--	--
30	2	3,575	3.24	54.29	42.18	.28	--	--
31	3	6,605	1.85	11.84	85.37	.53	.41	--
32	1	2,677	2.47	40.42	54.13	1.01	1.98	--
33	2	1,949	--	47.61	52.38	--	--	--
34	2	4,409	3.49	57.20	38.10	--	.73	.48
35	--	--	--	--	--	--	--	--
36	1	1,272	--	7.08	92.92	--	--	--
37	2	5,466	1.10	35.42	63.49	--	--	--
38	1	2,540	2.36	27.32	70.32	--	--	--
39	1	2,844	17.23	56.75	26.02	--	--	--
40	1	1,492	--	38.54	56.57	3.69	--	1.21
41	--	--	--	--	--	--	--	--
42	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--
44	1	1,824	--	30.65	69.35	--	--	--
45	--	--	--	--	--	--	--	--
46	--	--	--	--	--	--	--	--
47	--	--	--	--	--	--	--	--
48	1	2,683	38.84	27.25	29.37	4.55	--	--
49	2	7,378	10.08	49.31	38.03	1.76	.81	--
50	--	--	--	--	--	--	--	--
51	--	--	--	--	--	--	--	--
52	--	--	--	--	--	--	--	--
53	--	--	--	--	--	--	--	--
54	1	574	--	--	96.52	--	1.74	1.74
Total	473	243,023	1.47	30.60	67.01	.54	.26	.12

^{1/} Local use lumber graded by WCLIB rules.

Table 33.—Export lumber grade yields for all grade logs by log scaling diameter

Log scaling diameter (inches)	Number of logs	Total lumber tally	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}
<i>Board feet</i>			<i>Percent</i>					
6	12	1,490	--	--	99.53	0.47	--	--
7	28	3,247	--	11.24	87.68	.40	0.68	--
8	35	5,089	--	6.33	92.67	.83	--	0.18
9	40	6,800	--	5.21	93.90	.37	.19	.34
10	34	8,315	--	16.57	82.08	.71	.34	.30
11	39	9,084	--	20.50	78.97	.54	--	--
12	54	19,505	--	32.37	67.33	.26	.04	--
13	52	21,064	--	29.24	69.70	.67	.28	.10
14	41	17,847	--	31.09	68.18	.35	.04	.34
15	46	22,216	0.36	35.68	62.72	.56	.46	.21
16	41	24,153	--	37.60	61.96	--	.28	.17
17	32	19,379	--	30.17	68.43	.74	.47	.18
18	51	38,065	--	46.95	52.49	.36	.15	.04
19	34	29,288	.25	44.61	54.77	.24	.09	.04
20	27	24,760	.11	46.56	52.91	.09	.32	.01
21	38	40,332	.63	45.92	59.94	.38	.04	.08
22	32	38,262	2.03	48.93	48.28	.45	.26	.05
23	32	36,616	1.28	45.12	52.72	.42	.39	.07
24	27	38,091	3.21	46.16	49.38	.52	.65	.08
25	34	48,024	2.69	49.04	47.22	.66	.23	.15
26	21	26,885	7.45	47.70	43.26	1.07	.29	.23
27	21	31,204	3.70	55.67	40.19	.35	.03	.05
28	23	40,175	6.39	53.37	39.04	.75	.28	.15
29	22	36,266	5.85	54.38	38.29	1.12	.31	.06
30	24	44,630	9.51	55.05	33.81	.83	.63	.16
31	15	27,182	6.36	35.59	56.30	1.12	.31	.31
32	10	19,847	15.34	40.86	41.65	.86	1.08	.21
33	14	28,544	11.51	47.45	39.46	.76	.63	.19
34	13	29,226	14.05	51.72	32.28	1.05	.77	.13
35	10	23,485	30.34	38.50	27.60	2.83	.63	.10
36	3	5,679	2.25	25.13	72.19	--	.42	--
37	7	18,233	18.46	44.27	35.19	.96	1.11	--
38	12	30,013	20.48	43.40	34.57	.57	.99	--
39	7	19,529	21.83	50.48	25.93	1.21	.54	--
40	11	24,556	21.73	43.36	31.79	2.30	.75	.07
41	5	14,768	24.99	41.67	30.51	2.04	.79	--
42	10	26,842	27.54	34.38	34.48	2.39	1.21	--
43	3	7,347	6.56	49.63	41.55	1.10	1.16	--
44	7	22,877	13.96	53.95	28.92	2.22	.94	--
45	5	13,682	43.31	26.31	27.39	1.53	1.45	--
46	7	18,378	21.08	36.76	38.13	2.63	1.36	.03
47	3	9,304	26.50	45.22	22.78	3.87	1.45	.18
48	4	11,478	29.67	39.48	27.09	2.38	1.37	--
49	7	22,826	19.39	43.19	34.09	2.19	1.13	--
50	1	2,740	13.14	45.88	36.53	4.45	--	--
51	3	9,702	15.81	46.63	32.94	3.24	1.30	.08
52	2	7,681	21.04	52.31	24.49	1.35	.81	--
53	4	9,692	18.68	47.23	27.74	4.78	1.57	--
54	2	2,580	13.26	16.74	69.22	--	.39	.39
55	2	7,559	52.12	23.83	18.40	5.30	.34	--
56	2	6,625	5.58	54.67	33.71	4.83	1.66	.09
Total	1,009	1,051,162	9.48	43.53	45.29	1.08	.54	.10

^{1/} Local use lumber graded by WCLIB rules.

Table 34.—The distribution of study lumber by Export grade, thickness, and width for Select logs

Thickness	Width	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
								Percent	Board feet
----- Inches -----		----- Percent -----							
1	2	--	--	--	--	--	100.0	^{2/}	3
	4	--	--	--	--	4.3	95.7	0.1	92
	6	--	--	--	10.8	89.2	--	.3	204
	8	--	--	--	100.0	--	--	.1	55
2	4	--	--	--	78.7	21.3	--	.1	361
	6	--	--	--	79.7	20.3	--	2.1	1,498
	7	--	--	--	100.0	--	--	^{2/}	14
	8	--	--	--	80.0	20.0	--	.6	480
3	10	--	--	--	67.5	32.5	--	.2	163
	12	--	--	--	88.5	11.5	--	.9	628
	3	--	--	100.0	--	--	--	^{2/}	21
	4	--	21.0	79.0	--	--	--	.1	95
4	5	--	--	100.0	--	--	--	^{2/}	17
	6	--	3.5	96.5	--	--	--	.7	513
	8	--	--	100.0	--	--	--	^{2/}	28
	4	--	41.7	58.3	--	--	--	.4	307
5	5	--	--	100.0	--	--	--	.4	267
	6	22.5	18.6	68.9	--	--	--	4.0	2,880
	7	--	--	100.0	--	--	--	^{2/}	28
	8	45.2	27.4	27.4	--	--	--	.2	117
6	12	100.0	--	--	--	--	--	.2	160
	5	--	--	100.0	--	--	--	.1	42
	6	--	16.9	83.1	--	--	--	1.7	1,240
	6	37.5	37.3	25.2	--	--	--	13.8	9,900
7	7	--	70.3	29.7	--	--	--	4.5	3,239
	8	38.0	34.2	27.8	--	--	--	21.6	15,448
	9	--	68.8	31.2	--	--	--	3.6	2,575
	10	41.2	37.6	21.2	--	--	--	17.0	12,190
8	11	--	57.8	42.2	--	--	--	4.9	3,542
	12	51.2	31.5	17.3	--	--	--	12.9	9,228
	13	--	--	100.0	--	--	--	.6	403
	14	54.0	31.3	14.7	--	--	--	5.2	3,710
9	15	--	100.0	--	--	--	--	.5	390
	16	89.8	10.2	--	--	--	--	1.3	944
	18	66.7	33.3	--	--	--	--	.4	324
	20	59.1	40.9	--	--	--	--	.6	440
9	9	--	--	100.0	--	--	--	.5	377
----- Board feet -----									
Total		23,529	25,152	19,744	2,617	790	91		71,923

^{1/} Local lumber use graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 35.—The distribution of study lumber by Export grade, thickness, and width for No. 1 logs

Thickness	Width	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume		
								Percent	Board feet	
----- Inches -----		----- Percent -----								
1	4	--	--	--	10.9	14.7	74.4	0.2	2,265	
	6	--	--	--	4.3	93.4	2.3	.4	601	
	8	--	--	--	91.0	9.0	--	.1	144	
	12	--	--	--	--	44.4	55.6	<u>2/</u>	27	
2	4	--	--	--	86.8	13.2	--	.4	636	
	5	--	--	--	--	100.0	--	<u>2/</u>	10	
	6	--	--	--	75.2	24.8	--	1.0	1,467	
	8	--	--	--	81.2	18.8	--	.5	752	
	10	--	--	--	85.5	14.5	--	.3	413	
	12	--	--	--	80.9	19.1	--	.3	440	
	14	--	--	--	100.0	--	--	<u>2/</u>	33	
3	3	--	--	100.0	--	--	--	<u>2/</u>	31	
	4	--	--	100.0	--	--	--	.1	82	
	5	--	--	100.0	--	--	--	<u>2/</u>	17	
	6	10.8	--	89.2	--	--	--	.8	1,116	
	7	--	--	100.0	--	--	--	<u>2/</u>	35	
	8	--	--	100.0	--	--	--	<u>2/</u>	28	
	4	2.6	36.6	60.8	--	--	--	0.7	1,019	
4	5	--	--	100.0	--	--	--	0.3	433	
	6	28.2	7.1	64.7	--	--	--	3.4	5,088	
	7	--	34.0	66.0	--	--	--	.1	219	
	8	28.3	14.8	56.9	--	--	--	.2	357	
	10	73.9	--	26.1	--	--	--	.1	180	
	12	78.6	21.4	--	--	--	--	.3	448	
	14	62.2	--	37.8	--	--	--	.2	296	
	16	100.0	--	--	--	--	--	.1	128	
	5	5	--	--	100.0	--	--	--	<u>2/</u>	67
	6	--	.7	99.3	--	--	--	1.9	2,875	
7	--	100.0	--	--	--	--	<u>2/</u>	58		
12	--	100.0	--	--	--	--	<u>2/</u>	70		
6	6	23.3	47.7	29.0	--	--	--	9.1	13,428	
	7	--	65.1	34.9	--	--	--	5.7	8,358	
	8	17.1	42.6	40.3	--	--	--	23.3	34,128	
	9	--	53.6	46.4	--	--	--	7.0	10,314	
	10	22.2	40.5	37.3	--	--	--	17.8	25,890	
	11	--	73.2	26.8	--	--	--	5.0	7,338	
	12	34.2	42.6	23.2	--	--	--	9.9	14,604	
	13	--	60.8	39.2	--	--	--	1.4	2,054	
	14	51.1	34.3	14.6	--	--	--	4.8	7,128	
	15	--	100.0	--	--	--	--	.5	750	
	16	43.5	42.4	14.1	--	--	--	.9	360	
	17	--	100.0	--	--	--	--	.2	255	
	18	70.1	18.4	11.5	--	--	--	1.1	1,566	
	20	100.0	--	--	--	--	--	.6	413	
9	10	33.4	--	66.6	--	--	--	.4	630	
10	10	--	--	100.0	--	--	--	.8	1,167	
	12	--	100.0	--	--	--	--	.1	220	
----- Board feet -----										
Total		28,093	61,407	53,155	3,194	1,368	226	100.0	147,443	

^{1/} Local lumber use graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 36.—The distribution of study lumber by Export grade, thickness, and width for No. 2 logs

Thickness	Width	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume		
								Percent	Board feet	
----- Inches -----		----- Percent -----								
1	4	--	--	--	1.9	17.8	80.3	0.1	376	
	6	--	--	--	5.5	89.3	5.2	.1	685	
	8	--	--	--	90.9	--	9.1	<u>2/</u>	88	
	12	--	--	--	--	100.0	--	<u>2/</u>	26	
2	3	--	--	--	100.0	--	--	<u>2/</u>	10	
	4	--	--	--	54.8	43.5	1.7	.2	1,333	
	5	--	--	--	100.0	--	--	<u>2/</u>	15	
	6	--	--	--	68.8	30.9	.3	.4	2,706	
	8	--	--	--	73.1	25.7	1.2	.2	1,277	
	10	--	--	--	48.7	51.3	--	<u>2/</u>	273	
3	12	--	--	--	58.9	41.1	--	.1	672	
	4	--	--	100.0	--	--	--	<u>2/</u>	74	
	5	--	--	100.0	--	--	--	<u>2/</u>	40	
	6	1.5	4.9	93.6	--	--	--	.5	2,850	
	8	--	23.4	76.6	--	--	--	<u>2/</u>	188	
	10	--	--	100.0	--	--	--	<u>2/</u>	60	
	12	52.0	--	48.0	--	--	--	<u>2/</u>	150	
	16	--	100.0	--	--	--	--	<u>2/</u>	48	
4	4	--	32.5	67.5	--	--	--	.3	1,632	
	5	--	--	100.0	--	--	--	.2	1,171	
	6	8.1	11.1	80.8	--	--	--	1.8	10,308	
	7	--	35.4	64.6	--	--	--	.2	1,461	
	8	--	19.7	80.3	--	--	--	.2	1,515	
	9	--	22.9	77.1	--	--	--	.1	498	
	10	--	54.4	45.6	--	--	--	<u>2/</u>	294	
	11	--	19.6	80.4	--	--	--	.1	337	
	12	21.4	57.2	21.4	--	--	--	.1	448	
	13	--	30.0	70.0	--	--	--	.1	347	
	14	--	28.9	71.1	--	--	--	.1	485	
	15	--	40.0	60.0	--	--	--	<u>2/</u>	150	
	5	5	--	--	100.0	--	--	--	<u>2/</u>	58
		6	--	4.4	95.6	--	--	--	1.4	8,365
		7	--	100.0	--	--	--	--	<u>2/</u>	70
8		--	50.0	50.0	--	--	--	<u>2/</u>	120	
14		--	100.0	--	--	--	--	<u>2/</u>	117	
6	6	13.7	45.9	40.4	--	--	--	7.8	45,636	
	7	--	52.5	47.5	--	--	--	6.0	35,560	
	8	11.2	42.4	46.4	--	--	--	24.1	140,613	
	9	--	55.1	44.9	--	--	--	7.6	44,595	
	10	6.1	47.1	46.8	--	--	--	19.4	113,850	
	11	--	66.4	33.6	--	--	--	4.3	25,256	
	12	20.1	57.8	22.1	--	--	--	7.1	42,060	
	13	--	74.9	25.1	--	--	--	2.7	15,938	
	14	15.5	62.2	22.3	--	--	--	4.3	25,326	
	15	--	84.4	15.6	--	--	--	2.1	12,285	
	16	9.6	80.6	9.8	--	--	--	2.6	15,408	
	17	--	79.0	21.0	--	--	--	2.3	13,736	
	18	3.9	85.5	10.6	--	--	--	1.9	11,016	
	19	--	61.2	38.8	--	--	--	.6	3,382	
20	--	44.4	55.6	--	--	--	.4	2,340		
7	9	--	--	100.0	--	--	--	<u>2/</u>	210	
8	8	--	100.0	--	--	--	--	<u>2/</u>	128	
	9	--	100.0	--	--	--	--	<u>2/</u>	132	
9	9	--	--	100.0	--	--	--	.2	945	
10	10	--	--	100.0	--	--	--	<u>2/</u>	420	
	10	--	--	100.0	--	--	--	.2	1,050	
	12	--	--	100.0	--	--	--	.1	640	
----- Board feet -----										
Total		44,444	296,610	240,257	4,205	2,864	393	100.0	588,773	

^{1/} Local use lumber graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 37.—The distribution of study lumber by Export grade, thickness, and width for No. 3 logs

Thickness	Width	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
								Percent	Board feet
----- Inches -----		----- Percent -----							
1	4	--	--	--	3.2	13.8	83.0	0.1	282
	6	--	--	--	--	100.0	--	<u>2/</u>	41
	8	--	--	--	63.6	--	36.4	<u>2/</u>	33
2	4	--	--	--	64.0	30.4	5.6	.2	592
	6	--	--	--	58.8	36.9	4.3	.2	602
	8	--	--	--	69.6	30.4	--	.2	438
	10	--	--	--	100.0	--	--	<u>2/</u>	33
3	12	--	--	--	92.7	7.3	--	.1	220
	4	--	--	100.0	--	--	--	<u>2/</u>	66
	5	--	--	100.0	--	--	--	<u>2/</u>	70
	6	--	--	100.0	--	--	--	.6	1,479
	8	--	--	100.0	--	--	--	<u>2/</u>	40
4	10	--	--	100.0	--	--	--	<u>2/</u>	30
	4	--	37.6	62.4	--	--	--	.3	752
	5	--	--	100.0	--	--	--	.5	1,126
	6	1.9	6.4	91.7	--	--	--	2.2	5,384
5	7	--	12.6	87.4	--	--	--	.5	1,334
	8	--	4.2	95.8	--	--	--	.6	1,520
	9	--	7.2	92.8	--	--	--	.2	498
	10	--	4.8	95.2	--	--	--	.3	827
	11	--	45.7	54.3	--	--	--	.1	257
	12	--	--	100.0	--	--	--	.1	272
	13	--	--	100.0	--	--	--	<u>2/</u>	104
	14	--	--	100.0	--	--	--	.1	261
	5	--	--	100.0	--	--	--	<u>2/</u>	25
	6	--	1.2	98.8	--	--	--	1.5	3,750
	7	--	--	100.0	--	--	--	<u>2/</u>	70
	8	--	--	100.0	--	--	--	<u>2/</u>	40
6	9	--	--	100.0	--	--	--	<u>2/</u>	90
	11	--	--	100.0	--	--	--	<u>2/</u>	110
	12	--	--	100.0	--	--	--	<u>2/</u>	120
	6	2.6	27.9	69.5	--	--	--	6.6	16,128
	7	--	23.7	76.3	--	--	--	9.9	23,996
	8	2.6	25.8	71.6	--	--	--	20.7	49,672
	9	--	28.8	71.2	--	--	--	11.3	27,333
	10	1.7	25.2	73.1	--	--	--	18.0	43,100
	11	--	44.4	55.6	--	--	--	6.6	15,939
	12	4.1	47.8	48.1	--	--	--	5.7	13,788
	13	--	52.0	48.0	--	--	--	3.7	8,840
	14	--	62.0	38.0	--	--	--	3.2	7,756
	15	--	67.7	32.3	--	--	--	1.5	3,615
	16	5.8	61.6	32.6	--	--	--	2.1	5,200
7	17	--	88.0	12.0	--	--	--	.7	1,700
	18	--	51.3	48.7	--	--	--	.6	1,404
	19	--	34.3	65.7	--	--	--	.5	1,330
	20	24.1	--	75.9	--	--	--	.2	580
	8	--	--	100.0	--	--	--	.2	373
	10	--	--	100.0	--	--	--	.1	187
	11	--	--	100.0	--	--	--	<u>2/</u>	117
	9	--	--	100.0	--	--	--	.2	472
	10	--	--	100.0	--	--	--	.1	210
	10	--	--	100.0	--	--	--	.3	817
----- Board feet -----									
Total		3,582	74,353	162,847	1,305	632	304	100.0	243,023

^{1/} Local use lumber graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 38.—The distribution of study lumber by Export grade, thickness, and width for all log grades

Thickness	Width	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume		
								Percent	Board feet	
Inches		Percent								
1	2	--	--	--	--	--	100.0	2/	3	
	4	--	--	--	4.4	14.7	80.9	0.1	1,015	
	6	--	--	--	5.6	91.1	3.3	.1	1,531	
	8	--	--	--	90.0	4.1	5.9	2/	320	
2	12	--	--	--	--	71.7	28.3	2/	53	
	3	--	--	--	100.0	--	--	2/	10	
	4	--	--	--	66.6	31.5	1.9	.3	2,923	
	5	--	--	--	60.0	40.0	--	2/	25	
	6	--	--	--	72.0	27.5	.5	.6	6,273	
	7	--	--	--	100.0	--	--	2/	14	
	8	--	--	--	75.8	23.7	.5	.3	2,947	
	10	--	--	--	71.3	28.7	--	.1	882	
	12	--	--	--	77.2	22.8	--	.2	1,960	
	14	--	--	--	100.0	--	--	2/	33	
3	3	--	--	100.0	--	--	--	2/	52	
	4	--	6.3	93.7	--	--	--	2/	317	
	5	--	--	100.0	--	--	--	2/	144	
	6	2.7	2.7	94.6	--	--	--	.6	5,958	
	7	--	--	100.0	--	--	--	2/	35	
	8	--	15.5	84.5	--	--	--	2/	284	
	10	--	--	100.0	--	--	--	2/	90	
	12	52.0	--	48.0	--	--	--	2/	150	
	16	--	100.0	--	--	--	--	2/	48	
	4	.7	35.4	63.9	--	--	--	.4	3,711	
4	5	--	--	100.0	--	--	--	.3	2,997	
	6	12.8	8.8	78.4	--	--	--	2.2	23,660	
	7	--	25.0	75.0	--	--	--	.3	3,042	
	8	4.4	12.8	82.8	--	--	--	.3	3,509	
	9	--	15.1	84.9	--	--	--	.1	996	
	10	10.2	15.4	74.4	--	--	--	.1	1,300	
	11	--	30.9	69.1	--	--	--	.1	593	
	12	45.8	26.5	27.7	--	--	--	.1	1,328	
	13	--	23.0	77.0	--	--	--	2/	451	
	14	17.6	13.4	69.0	--	--	--	.1	1,042	
	15	--	40.0	60.0	--	--	--	2/	150	
	16	100.0	--	--	--	--	--	2/	128	
	5	5	--	--	100.0	--	--	--	2/	192
		6	--	4.0	96.0	--	--	--	1.5	16,230
		7	--	64.6	35.4	--	--	--	2/	198
8		--	37.5	62.5	--	--	--	2/	160	
9		--	--	100.0	--	--	--	2/	90	
11		--	--	100.0	--	--	--	2/	110	
12		--	100.0	--	--	--	--	2/	190	
14		--	100.0	--	--	--	--	2/	117	
6	6	15.9	41.8	42.3	--	--	--	8.1	85,092	
	7	--	45.1	54.9	--	--	--	6.8	71,153	
	8	12.0	38.4	49.6	--	--	--	22.9	239,861	
	9	--	46.8	53.2	--	--	--	8.1	84,818	
	10	9.5	40.7	49.8	--	--	--	18.7	195,030	
	11	--	60.1	39.9	--	--	--	5.0	52,075	
	12	23.5	50.3	26.2	--	--	--	7.6	79,680	
	13	--	65.8	34.2	--	--	--	2.6	27,638	
	14	21.8	55.0	23.2	--	--	--	4.2	43,920	
	15	--	81.9	18.1	--	--	--	1.6	17,040	
	16	14.0	71.3	14.7	--	--	--	2.2	23,046	
	17	--	80.3	19.7	--	--	--	1.5	15,691	
	18	12.2	73.6	14.2	--	--	--	1.4	14,310	
	19	--	53.6	46.4	--	--	--	.4	4,712	
20	20.8	32.6	46.6	--	--	--	.4	3,740		
7	9	--	--	100.0	--	--	--	2/	210	
8	8	--	25.5	74.5	--	--	--	2/	501	
	9	--	100.0	--	--	--	--	2/	132	
	10	--	--	100.0	--	--	--	2/	187	
9	11	--	--	100.0	--	--	--	2/	117	
	9	--	--	100.0	--	--	--	.2	1,794	
	10	22.2	--	77.8	--	--	--	.1	1,260	
10	10	--	--	100.0	--	--	--	.3	3,034	
	12	--	25.6	74.4	--	--	--	.1	860	
Board feet										
Total		99,648	457,522	476,003	11,321	5,654	1,014	100.0	1,051,162	

^{1/} Local use lumber graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 39.—The distribution of study lumber by Export grade and length for Select logs

Board length (feet)	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
							Percent	Board feet
----- Percent -----								
8	3.6	8.9	7.1	67.0	13.4	--	0.6	449
10	21.5	17.8	11.6	36.4	12.7	--	.8	605
12	39.7	33.2	22.1	2.7	2.3	--	22.1	15,825
14	40.6	28.6	24.2	4.9	1.5	0.2	17.3	12,471
16	18.1	25.2	25.7	26.3	2.4	2.3	1.8	1,324
18	36.6	29.5	29.4	4.0	.5	--	14.5	10,434
20	32.8	35.6	29.9	1.4	.1	.2	15.7	11,253
22	35.3	17.7	26.5	20.5	--	--	.3	249
24	11.4	49.7	38.1	.8	--	--	15.6	11,144
26	35.9	39.0	25.1	--	--	--	11.3	8,169
----- Board feet -----								
Total	23,529	25,152	19,744	2,617	790	91	100.0	71,923

^{1/} Local use lumber graded by WCLIB rules.

Table 40.—The distribution of study lumber by Export grade and length for No. 1 logs

Board length (feet)	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
							Percent	Board feet
----- Percent -----								
6	--	--	--	100.0	--	--	^{2/}	4
8	10.0	13.6	33.2	33.4	8.6	1.2	0.4	638
10	--	15.4	29.2	33.9	19.5	2.0	.4	650
11	--	--	--	--	100.0	--	--	6
12	25.7	38.5	30.7	3.2	1.6	.3	17.8	26,204
14	37.3	29.7	29.7	2.4	.8	.1	15.1	22,207
16	2.5	22.9	30.6	36.7	5.2	2.1	.9	1,292
18	15.1	45.4	37.0	1.3	1.1	.1	13.9	20,476
20	12.0	45.5	40.9	1.0	.5	.1	33.8	49,879
22	12.3	53.2	30.2	3.8	.5	--	1.6	2,332
24	12.8	46.9	39.6	.5	.2	--	9.1	13,468
26	18.7	45.8	35.5	--	--	--	7.0	10,287
----- Board feet -----								
Total	28,093	61,407	53,135	3,194	1,368	226	100.0	53,135

^{1/} Local use lumber graded by WCLIB rules.

^{2/} Percentage is less than 0.05.

Table 41.—The distribution of study lumber by Export grade and length for No. 2 logs

Board length (feet)	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
							Percent	Board feet
----- Percent -----								
6	--	--	B3.3	--	16.7	--	2/	36
8	--	19.4	32.9	33.0	11.8	2.9	0.2	1,276
10	2.1	27.4	36.6	21.9	9.8	2.1	.3	1,870
12	18.2	42.8	36.2	1.3	1.3	.2	10.8	63,464
14	12.1	40.0	45.3	1.5	1.0	.1	8.2	48,395
16	3.9	32.2	40.9	16.3	5.7	.8	.7	4,091
18	7.2	43.6	47.9	.7	.6	.1	11.7	68,808
20	5.7	55.9	38.1	.2	.1	--	34.4	202,309
21	100.0	--	--	--	--	--	2/	84
22	1.8	59.6	37.4	.7	.5	--	1.8	10,802
24	5.1	53.9	40.6	.2	.2	2/	25.0	147,170
26	6.5	48.1	45.4	--	--	--	6.8	40,148
32	--	--	100.0	--	--	--	.1	320
----- Board feet -----								
Total	44,444	296,610	240,257	4,205	2,864	393	100.0	588,773

^{1/} Local use lumber graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 42.—The distribution of study lumber by Export grade and length for No. 3 logs

Board length (feet)	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
							Percent	Board feet
----- Percent -----								
8	--	11.3	45.0	26.4	13.5	3.8	0.2	497
10	--	16.3	34.4	27.5	15.3	6.5	.2	523
11	--	--	--	--	--	100.0	2/	4
12	4.8	27.5	65.9	.9	.5	.2	10.7	26,056
14	3.2	20.5	74.8	1.0	.4	.1	8.9	21,650
16	3.6	3.8	79.6	7.9	2.9	2.2	.9	2,223
18	1.6	29.4	68.0	.5	.3	.2	13.5	32,817
20	.6	35.4	63.6	.2	.1	.1	32.4	78,725
22	.9	22.3	75.7	.8	.3	--	3.1	7,257
24	.3	28.3	71.3	.1	2/	--	22.5	54,738
26	1.7	42.6	55.6	--	.1	--	7.6	18,533
----- Board feet -----								
Total	3,582	74,353	162,847	1,305	632	304	100.0	243,023

^{1/} Local use lumber graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Table 43.—The distribution of study lumber by Export grade and length for all logs

Board length (feet)	Piano	A	B + C	B and Better ^{1/}	3 Common ^{1/}	Below 3 Common ^{1/}	Lumber volume	
							Percent	Board feet
----- Percent -----								
6	--	--	75.0	10.0	15.0	--	2/	40
8	2.8	15.1	31.0	37.3	11.6	2.2	0.3	2,860
10	4.7	22.1	30.8	27.2	12.8	2.4	.3	3,648
11	--	--	--	--	60.0	40.0	2/	10
12	19.6	37.7	39.4	1.8	1.3	.2	12.5	131,548
14	19.0	32.4	45.6	2.0	.9	.1	10.0	104,723
16	5.7	22.8	47.0	18.6	4.4	1.5	.8	8,930
18	9.3	39.2	49.9	.9	.6	.1	12.6	132,535
20	6.3	49.0	44.2	.3	.2	--	32.6	342,167
21	100.0	--	--	--	--	--	2/	84
22	3.1	45.2	50.0	1.3	.4	--	2.0	20,640
24	4.7	47.1	47.9	.2	.1	--	21.6	226,520
26	10.1	45.5	44.4	--	--	--	7.3	77,137
32	--	--	100.0	--	--	--	2/	320
----- Board feet -----								
Total	99,648	457,522	476,002	11,322	5,654	1,014	100.0	1,051,162

^{1/} Local use lumber graded by WCLIB rules.^{2/} Percentage is less than 0.05.

Lane, Paul H., Richard O. Woodfin, Jr., John W. Henley,
and Marlin E. Plank

1972. Lumber yield from Sitka spruce in southeastern
Alaska. USDA Forest Serv. Res. Pap. PNW-134,
44 p., illus. Pacific Northwest Forest and Range
Experiment Station, Portland, Oreg.

About 98 percent of the Sitka spruce lumber sawn in
a southeastern Alaska lumber recovery study was in cants
3 to 8 inches in thickness. Thirteen percent of the lumber
volume was graded No. 2 and 3 Clear by the Pacific Lumber
Inspection Bureau rules and 9 percent Piano under Export
rules.

Lane, Paul H., Richard O. Woodfin, Jr., John W. Henley,
and Marlin E. Plank

1972. Lumber yield from Sitka spruce in southeastern
Alaska. USDA Forest Serv. Res. Pap. PNW-134,
44 p., illus. Pacific Northwest Forest and Range
Experiment Station, Portland, Oreg.

About 98 percent of the Sitka spruce lumber sawn in
a southeastern Alaska lumber recovery study was in cants
3 to 8 inches in thickness. Thirteen percent of the lumber
volume was graded No. 2 and 3 Clear by the Pacific Lumber
Inspection Bureau rules and 9 percent Piano under Export
rules.

Lane, Paul H., Richard O. Woodfin, Jr., John W. Henley,
and Marlin E. Plank

1972. Lumber yield from Sitka spruce in southeastern
Alaska. USDA Forest Serv. Res. Pap. PNW-134,
44 p., illus. Pacific Northwest Forest and Range
Experiment Station, Portland, Oreg.

About 98 percent of the Sitka spruce lumber sawn in
a southeastern Alaska lumber recovery study was in cants
3 to 8 inches in thickness. Thirteen percent of the lumber
volume was graded No. 2 and 3 Clear by the Pacific Lumber
Inspection Bureau rules and 9 percent Piano under Export
rules.

Lane, Paul H., Richard O. Woodfin, Jr., John W. Henley,
and Marlin E. Plank

1972. Lumber yield from Sitka spruce in southeastern
Alaska. USDA Forest Serv. Res. Pap. PNW-134,
44 p., illus. Pacific Northwest Forest and Range
Experiment Station, Portland, Oregon.

About 98 percent of the Sitka spruce lumber sawn in
a southeastern Alaska lumber recovery study was in cants
3 to 8 inches in thickness. Thirteen percent of the lumber
volume was graded No. 2 and 3 Clear by the Pacific Lumber
Inspection Bureau rules and 9 percent Piano under Export
rules.

ACKNOWLEDGMENTS

This report is based on a study carried out by Forest Service personnel from the Alaska Region (R-10) of the National Forest System and the Pacific Northwest Forest and Range Experiment Station in cooperation with the Wrangell Lumber Company. Particular credit is due H. Hiromatsu, C. R. Neill, and A. M. Sedlack of the Wrangell Lumber Company for making their facilities available to the Forest Service to saw study logs and to the mill's operating personnel for assistance in collecting the lumber yield data.

The following logging companies provided invaluable assistance in arranging for the felling, bucking, and transportation of the study logs:

Burrell Logging Company, Inc.
Carr and Plummer Log Company
Clear Creek Logging Company, Inc.
Davidson Logging Company, Inc.
Don Meurs Logging Company
J & H Logging Company, Inc.
Ketchikan Pulp Company
LeMay Logging Company

L.O.G. Logging Company, Inc.
Mud Bay Logging Company
Norton Logging Company
Penttila Logging Company
Reid Brothers Logging Company
Sykes Logging Company
Whitewater Log Company, Inc.

Personnel from the following organizations were the principal study participants:

PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION

Timber Quality for Western Softwoods Research Project organized and directed the study in collaboration with the Alaska Region of the National Forest System.

Paul H. Lane, Project Leader
John W. Henley and Richard O. Woodfin, Jr., study leaders
Assisting with data collection and analysis: M. Wallace Burck, David C. Carpenter,
Thomas D. Fahey, Marlin E. Plank, and W. Y. Pong
Statistical Clerks: Donald C. Martin and Mildred P. Reeder

The Forest Survey Project in Alaska provided personnel at the sawmill to help collect the data.

O. Keith Hutchison, Project Leader. Staff assistants included Thomas Laurent, Ron Dippold, John Zasada, and Robert Matson.

ALASKA REGION (R-10) NATIONAL FOREST SYSTEM

Division of Timber Management - Russell E. Lockhart, Assistant Regional Forester.
Staff personnel assisting in planning and conducting study included Richard Baker, Richard Davis, John Raynor, DeWilton Smith, and James S. Watson.

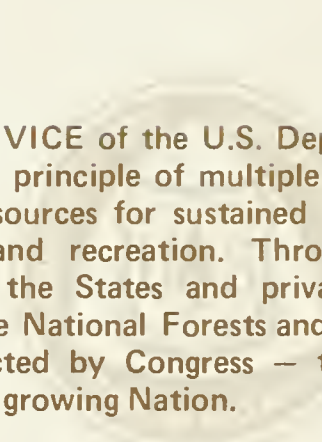

Division of State and Private Forestry - Clyde E. Peacock, Assistant Regional Forester. Verner W. Clapp assisted at the mill.

North Tongass, South Tongass, and Chugach National Forests through the Forest Supervisors provided personnel to help collect data in the woods and at the mill. Particular credit is due District Ranger Norman Schoonover, John E. Bennett, and Joseph Jewell.

The Bureau of Indian Affairs and the Alaska State Division of Lands provided personnel to help collect data at the mill.

The Pacific Lumber Inspection Bureau provided the lumber grading services of Walter Chappell.

The Puget Sound Log Scaling and Grading Bureau provided for the scaling of study logs.



The FOREST SERVICE of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.